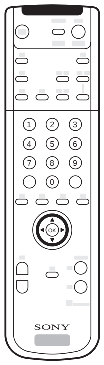
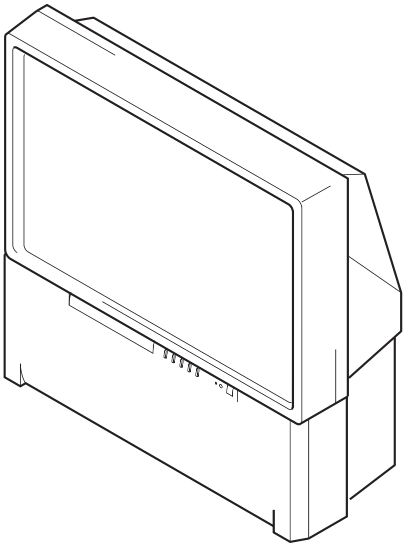
Self Diagnosis Supported model

SERVICE MANUAL RE-2A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-41PX1	RM-892	AEP	SCC-P66A-A
KP-41PX1K	RM-892	OIRT	SCC-P68A-A
KP-41PX1R	RM-862	Russian	SCC-P67A-A



RM-892



PROJECTION TV

SONY®

SPECIFICATIONS

TV system
B/G/H, D/K, I, L

Colour system
PAL, SECAM
NTSC 3.58, 4.43 (only Video In)

Channel coverage
VHF: E2-E12
UHF: E21-E69
CATV: *S1-S20*
HYPER: S21-S41
D/K: R1-R12, R21-R69
L: F2-F10, B-Q, F21-F69
I: UHF B21-B69

Projected picture size
41 inches
Approx. 130 measured diagonally

Rear Terminals

• ⊳ ←C–	Centre speaker input terminals (2 terminals)
• ⊖	(L, R) audio outputs (phono jacks)
• ⇥1/⇤	21-pin Euro connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output.
• ⇥2/⇥S 2	21-pin Euro connector (CENELEC standard) including audio/video input, S video input, selectable audio/video output
• ⇥3 (SMARTLINK)	21-pin Euro connector (CENELEC standard) including audio/video input, selectable audio / video output (selectable the same output source as ⇥2/⇥S 2 connector) and Smartlink interface (41PX1/41PX1R)

Front Terminals

⇥2	video input - phono jack
⇥2	audio inputs - phono jacks
⇥S2	S video input - 4 pin DIN
🎧	Headphones jack - minijack stereo

Sound output
2 x 30 W (music power)
2 x 15 W (RMS)

Centre SP input
30 W (RMS) (using as the centre speaker)

Power consumption
145 W

Standby Power consumption
0.7 W

Dimensions (w x h x d)
Approx. 948 x 992 x 511 mm

Weight
Approx. 43 kg

Accessories supplied
1 Remote Control (RM-892) : 41PX1/41PX1K
□□ (RM-862) : 41PX1R
2 Batteries (IEC designated)

Other features
Digital Comb filter (High resolution)
TELETEXT, Fastext, TOPtext
NICAM
Sleep Timer
Smartlink : 41PX1/41PX1K
Dolby Virtual

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF HTE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SELF DIAGNOSIS FUNCTION

Diagnostic Errors

The errors indicated below can be read using an Error Reader Display (Part Number S-188-900-10) connected to the service connector. Once an error has been detected it will then be displayed on the two digit error reader.

During the power up procedure and during normal run time, the micro's self diagnostic procedures monitor for various errors, as described in the table below:

Error Number	Error Description
00	No error (TV Error Reader shows 00 in normal condition)
01	Not allowed (may be confused with SIRCS response flash on LED)
02	Protection circuit trip (Any time)
03	Reserved
04	No Vertical Synchronism
05	AKB
06	IIC SCL Low < Power Up Only >
07	IIC SDA Low < Power Up Only >
08	IIC SDA & SCL Low < Power Up Only >
09	Jungle controller no acknowledge < Power Up Only >
10	Video Switch (CXA2040) no acknowledge < Power Up Only >
11	Tuner no acknowledge
12	MSP no acknowledge
13	NVM no acknowledge
14	AV Switch (CXA2089) no acknowledge
15	Digital micro no acknowledge
16	Port Expander (CXA1875) no acknowledge
17	Multiple devices with no acknowledge <Power Up Only>
18	Cannot initialize jungle (after initial power on check OK) - < Chassis Initialization >
19	Jungle controller response failure after power up check (+9V) test
20	Video Switch (CXA2040) cannot power on reset - < Chassis Initialization >
21	Video Switch (CXA2040) response failure after power up check (+9V)
22	NVM acknowledge fail after initialization (STBY +5V)
23	MSP run-time failure < May Not Be Fatal - Display On Error Reader >
24	DSP run-time failure < May Not Be Fatal - Display On Error Reader >
25	M3L bus Clock low time out after data send < Run-Time Failure >
26	M3L bus Clock low time out after data send < At Power Up Check >
27	M3L bus Clock low time out after data send < At Initialization >
28	M3L Txd Low < Power Up Only >
29	M3L Rxd Low < Power Up Only >
30	M3L Enable Low < Power Up Only >
31	Compact Text test fail < Power Up Only >
32	Compact Text does not respond (+5V test)
33	Compact text run-time failure < May Not Be Fatal - Display On Error Reader >

Protection Error (Error 2):

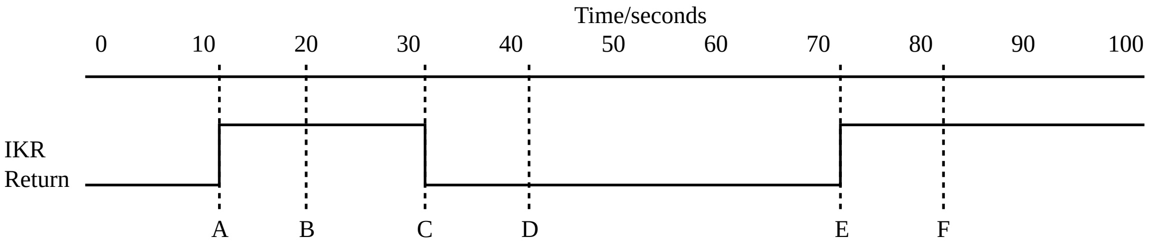
Once every main loop (approximately 200ms OSD mode, 50ms text or menu mode), the micro checks the protection pin (pin 66). If the protection pin is high 6 successive times, a protection error is diagnosed. The protection pin is **not** checked during the first 3-4 seconds after AC on.

If this error is diagnosed, the respective NVM register will be updated and the set goes straight into diagnostic standby with 2 flashes - no reset is attempted.

AKB Error (Error 5):

Once every main loop the micro checks the AKB stability by reading the IKR return from the jungle. IKR=1 means that AKB is stable, IKR=0 means that AKB is unstable. If the AKB status is unstable for 10 seconds, an AKB error is diagnosed. AKB stability is **not** checked during the first 20 seconds after AC on.

If this error is diagnosed, the respective NVM register will be updated and the response LED will flash 5 times continually, but the set will ***not*** *go into standby. If the AKB status becomes stable, and remains stable for 10 seconds, the LED will stop flashing.*



A. IKR Return first goes high after 12 seconds
B. Micro begins checking IKR Return status 20 seconds after power on
C. Micro detects IKR return=0
D. Micro detects that IKR has been 0 for 10 seconds; NVM counter is incremented and the LED starts flashing (flashes 5 times, off for 2 seconds, flashes 5 times, etc.)
E. Micro detects that IKR=1; LED continues to flash
F. Micro detects that IKR has been high for 10 seconds; LED stops flashing.

Startup Diagnostic Errors (Errors 6-16, 26, 28-31):

These errors are checked for during the power up sequence before attempting to retrieve data from the NVM.

6 - SCL pin low
7 - SDA pin low
8 - Both the SCL and the SDA pin are low
9 - No acknowledge from the jungle (CXA2076)
10 - No acknowledge from the video switch (CXA2040)
11 - No acknowledge from the tuner
12 - No acknowledge from the MSP
13 - No acknowledge from the NVM
14 - No acknowledge from the CXA2089 video switch
16 - No acknowledge from the CXA1875 Port Expander
26 - M3L_TXD pin low after Compact Text RAM test
28 - M3L_TXD pin low
29 - M3L_RXD pin low
30 - M3LEN pin low
31 - Compact Text RAM test fail

If any of these errors are detected, the respective NVM register will be incremented. The software will then carry on with the power up sequence.

General I^{2}C Device Run-time Errors (Errors 18-22):

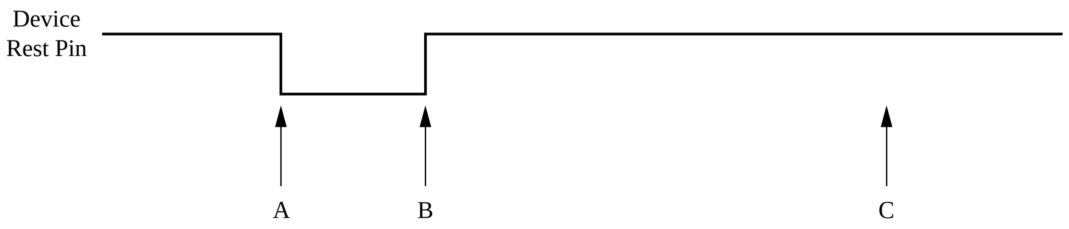
18 - No acknowledge from Jungle when attempting to initialize
19 - No acknowledge from Jungle when attempting to read registers
20 - AV Switch cannot complete reset during initialization
21 - No acknowledge from AV Switch when attempting to read registers
22 - No acknowledge from NVM when attempting to read or write

If any of these errors are detected, the respective NVM register will be incremented and the software will carry on.

Compact Text Run-time Errors (Errors 25, 27, 32 & 33):

25 - M3L_TXD pin low when checking register 81 (implies that no communication was possible)
27 - M3L_TXD pin low when attempting to initialize (implies that no communication was possible)
32 - Compact Text RAM test fail during initialization of devices

In the case of these errors, the 'device reset' pin will be held low for 60ms, causing a hardware reset of Compact Text. Following this reset, a longer timeout will be allowed for the M3L bus to recover. If the error still exists, the NVM register will be incremented and the software will carry on.



A. IKR Return first goes high after 12 seconds
B. Micro begins checking IKR Return status 20 seconds after power on
C. Micro detects IKR return=0
D. Micro detects that IKR has been 0 for 10 seconds; NVM counter is incremented and the LED starts flashing (flashes 5 times, off for 2 seconds, flashes 5 times, etc.)
E. Micro detects that IKR=1; LED continues to flash
F. Micro detects that IKR has been high for 10 seconds; LED stops flashing.

33 - Register 81 check fail, but M3L_TXD pin high (implies that Compact Text has either reset or become corrupted).

In this case, the 'device reset' pin will be held low for 60ms, causing a hardware reset of Compact Text. Compact Text will then be re-initialized and the NVM counter updated. This is the same as for errors 26, 28 and 33 except that the M3L bus timeout is not changed. Also, during the reset, Compact Text OSD will be disabled (using pin 59 of the micro). Only when the sync registers have been refreshed twice, will the OSD be enabled.

MSP and DSP Run-time Errors (Errors 23 & 24):

Error 23 can be caused by any of the following:

- After MSP initialization, Scart Prescale Register check fail (implies that the MSP has either reset or become corrupted).
- MSP fails to acknowledge reset instruction
- Scart Prescale Register check fail (implies that the MSP has either reset or become corrupted).

Error 24 is caused by:

- DSP test byte corrupted (implies that the DSP has either reset or become corrupted).

For both of these errors, the software will refresh the MSP and DSP registers. If the errors still exist, the NVM counter will be incremented, and the software will carry on.

Error Display Mode

Error Display Mode is entered by the following sequence of commands:

Standby → Information → Digit 5 → Volume Down → TV

This mode will display a special menu, which will list all possible errors and the number of occurrences of each error (0 – 255, as stored in the NVM). There will also be a display of the current error (00 if no error). This display mode will appear as follows:

ERROR DISPLAY MODE

Current Error Code = 00

Error Code	Occurrences	Error Code	Occurrences
2	2	18	0
3	—	19	0
4	—	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	4
9	0	25	5
10	0	26	89
11	0	27	3
12	0	28	0
13	0	29	0
14	0	30	0
15	3	31	0
16	0	32	3
17	0	33	38

Whilst in this mode, the number of occurrences of each error can be reset to 0 by TT08.

Only AC off or standby off can exit this mode.

The Current Error Code can also be read by using a TV Error Reader (I2C slave address 42H). This device simply receives 1 data byte, which is the error number in binary coded decimal form.

TT command table

TT Mode is available by pressing the test key twice. It is exited by pressing 0 twice, or by pressing the Test key, or by pressing the TV key or by switching the set into standby.

Pressing the Menu key when in TT mode enters in main Test Menu. Pressing the Menu key again enters in the User Menus.

TT Modes 40-49 require TV to be in program 59 before the command is accepted. Some Test models are dependant upon the model.

Code	Function
<Menu>	Enter into Service Menu
00	Exit from TT mode
01	Set Picture Level to Maximum
02	Set Picture Level to Minimum
03	Set Volume to 35% (41PX1/41PX1K) Set Volume to 30% (41PX1R)
04	Set Volume to 50%
05	Set Volume to 65%
06	Set Volume to 80%
07	Ageing Mode Enable / Disable
08	Shipping Condition
09	Display TV Status (41PX1/41PX1K) Reset Language Select Menu on Power Up (41PX1R)
11	Sub Picture Adjustment (41PX1/41PX1K) Clear & Disable OSD (41PX1R)
12	Sub Colour Adjustment (41PX1/41PX1K) Enable OSD (41PX1R)
13	Sub Brightness Adjustment (41PX1/41PX1K) Scart 16 : 9 Enable / Disable (41PX1R)
14	Text H-Position Adjustment (41PX1/41PX1K) Display TV Status (41PX1R)
15	Picture Reset
17	Headphones Volume by Pressing Arrows (41PX1/41PX1K) Set All AV Labels to Default (41PX1R)
18	Set Volume to 20% (41PX1/41PX1K) RGB Priority Enable / Disable (41PX1R)
19	Factory Mode Toggle (41PX1/41PX1K) Set All Program Labels to Default (41PX1R)
21	Destination A/D (East Menu / West Text) (41PX1/41PX1K) Sub Picture Adjustment (41PX1R)
22	Destination L (West Menu / West Text) (41PX1/41PX1K) Sub Colour Adjustment (41PX1R)
23	Destination E (West Menu / West Text) (41PX1/41PX1K) Sub Brightness Adjustment (41PX1R)
24	Destination U (West Menu / West Text)
25	Destination D (East Menu / Greek Text)
26	Destination AEP (East Menu / West Text / Greek Text) (41PX1/41PX1K) Destination B (East Menu / West Text) (41PX1R)
27	Destination K (East Menu / East Text)
28	Destination R (Russian Menu / Russian Text) (41PX1/41PX1K) Destination L (West Menu / West Text) (41PX1R)

Code	Function
29	No Function (41PX1/41PX1K) Destination E (West Menu / West Text) (41PX1R)
31	Toggle Auto Shutoff Disable (41PX1/41PX1K) Destination A (East Menu / West Text) (41PX1R)
32	Toggle Bit Error Rate Display (41PX1/41PX1K) Destination R (Russian Menu / Russian Text) (41PX1R)
33	Toggle Terminal Debug Mode (41PX1/41PX1K) Sub Woofer Enable (41PX1R)
34	No Function (41PX1/41PX1K) Sub Woofer Disable (41PX1R)
35	No Function (41PX1/41PX1K) Setup Trap Switch (41PX1R)
36	No Function (41PX1/41PX1K) Rotation Test (41PX1R)
37	No Function (41PX1/41PX1K) 25" Set (41PX1R)
38	No Function (41PX1/41PX1K) 25" Reset (41PX1R)
39	Reserved for Dealer Commander (41PX1/41PX1K) No Function (41PX1R)
41	Re-initialize NVM
42	Re-initialize Geometry Settings (41PX1/41PX1K) Default Program Info in NVM with Pencoed Factory Channel Cetup (41PX1R)
43	Default Program Info in NVM with Pencoed Factory Channel Setup (41PX1/41PX1K) Default Geometry Settings (41PX1R)
44	Default Favourite Pages to 100, 101, 102, 103
45	Switch Off All Channel Locks
46	Reserved for Dealer Commander
47	Default MSP Settings
48	Set NVM as Non-virgin (41PX1/41PX1K) Restore NVM Test Byte Undo TT49 (41PX1R)
49	Set NVM as Virgin (41PX1/41PX1K) Delete NVM Test Byte Sets Virgin NVM (41PX1R)
51	No Function (41PX1/41PX1K) Text Interlace Odd (non interlace mode = 3) (41PX1R)
52	No Function (41PX1/41PX1K) Text Interlace Even (non interlace mode = 2) (41PX1R)
53	No Function (41PX1/41PX1K) Auto Picture ON (41PX1R)

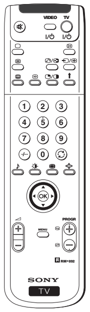
Code	Function
54	No Function (41PX1/41PX1K) Auto Picture OFF (41PX1R)
55	No Function (41PX1/41PX1K) Auto Cut Off Enable (41PX1R)
56	Set Colour to Minimum and Picture to Maximum (41PX1/41PX1K) Auto Cut Off Disable (41PX1R)
57	Set Colour & Picture to Minimum and Adjust Sub Brightness (41PX1/41PX1K) AV3 Enable (41PX1R)
58	Set Picture Level to 50% (41PX1/41PX1K) AV3 Disable (if TV Text) otherwise AV3 Enable (41PX1R)
59	No Function (41PX1/41PX1K) Auto IF Display (41PX1R)
61	N Board Reset (41PX1/41PX1K) Dolby Pro-logic ON (41PX1R)
62	Toggle the 3.3 V Regulator on A2 Board (41PX1/41PX1K) Noise Left (41PX1R)
63	Toggle Attenuation Switch on Port Expander (41PX1/41PX1K) Noise Right (41PX1R)
64	Smart Link Test - Toggle the Smart Link Pin 50 Times (41PX1/41PX1K) Noise Centre (41PX1R)
65	Active Standby Setup (41PX1/41PX1K) Noise Surround (41PX1R)
66	Restart Digicon (41PX1/41PX1K) DSP Bypass (41PX1R)
67	Save Geometry (41PX1/41PX1K) No Function (41PX1R)
68	Pre-set AV Labels (41PX1/41PX1K) Diagnostics OFF (41PX1R)
69	Toggle Partial Digital Off-flag (41PX1/41PX1K) Diagnostics ON (41PX1R)
71	Select Compact Text / Compact Text-2 (41PX1/41PX1K) LumiSponder Curve 1 (41PX1R)
72	Balance Left / Right (◀ : Left, ▶ : Right, ▲ : Center) (41PX1/41PX1K) LumiSponder Curve 2 (41PX1R)
73	Dual Sound Headphones (▲ : A, ▼ : B) (41PX1/41PX1K) Jungle Select (CXA2000 or CXA2076) (41PX1R)
74	Dual Sound Speakers (▲ : A, ▼ : B) (41PX1/41PX1K) Text H-Position Adjustment (41PX1R)
75	Switch Main Speakers / Center (41PX1/41PX1K) Picture Reset (41PX1R)
76	Dolby Enable / Disable Toggle (41PX1/41PX1K) MSP BG Filter Enabled (41PX1R)
77	Setup Trap Switch (41PX1/41PX1K) Sound Reset (41PX1R)

Code	Function
78	Set Screen Size (41PX1/41PX1K) MSP BG Filter Disabled (41PX1R)
79	Wide Setup
81	Velocity Modulation ON
82	Velocity Modulation OFF
83	Special Picture Mode (41PX1/41PX1K) Picture Rise Step 40ms (41PX1R)
84	Text Interlace Odd (non interlace mode=3) (41PX1/41PX1K) Picture Rise Step 80ms (41PX1R)
85	Text Interlace Even (non interlace mode=2) (41PX1/41PX1K) Picture Rise Step 160ms (41PX1R)
86	Auto Cut Off Enable (41PX1/41PX1K) Picture Rise OFF (41PX1R)
87	Auto Cut Off Disable (41PX1/41PX1K) Select Shop Mode (41PX1R)
88	Diagnostics OFF (41PX1/41PX1K) Compact Text Acquisition Disable (41PX1R)
89	Diagnostics ON (41PX1/41PX1K) Compact Text Acquisition Eable (41PX1R)
91	Clear & Disable OSD (41PX1/41PX1K) Sound Center Mode NORMAL (41PX1R)
92	Eable OSD (41PX1/41PX1K) Sound Center Mode WIDE (41PX1R)
93	D / K Nicam Eable (41PX1/41PX1K) Sound Center Mode PHANTOM (41PX1R)
94	D / K Nicam Disable (41PX1/41PX1K) Toggle Compact Text Acquisition Delay Bit 0 (41PX1R)
95	Reset Language Select Menu on Power Up (41PX1/41PX1K) Toggle Compact Text Acquisition Delay Bit 1 (41PX1R)
96	Set All Program Labels to Default (41PX1/41PX1K) Toggle Compact Text Acquisition Delay Bit 2 (41PX1R)
97	Toggle MHEG Mode (41PX1/41PX1K) Toggle Compact Text Acquisition Delay Bit 3 (41PX1R)
98	No Function (41PX1/41PX1K) Toggle Compact Text Acquisition Delay Bit 4 (41PX1R)
99	No Function (41PX1/41PX1K) Set Test Menu (41PX1R)

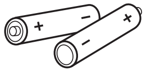
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

SECTION 2
GENERAL

Checking the Accessories Supplied

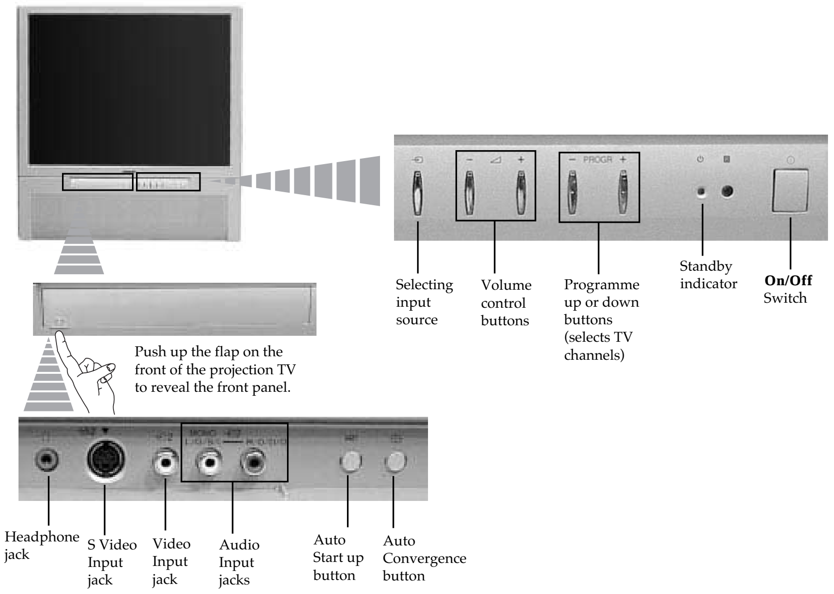


One Remote Control
(RM-892)



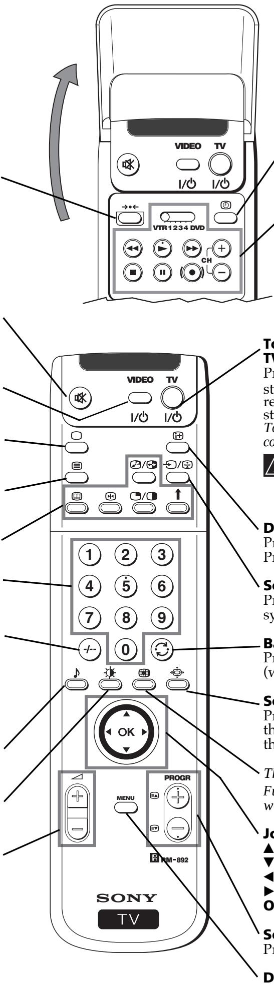
Two batteries (R6 type)

Overview of Projection TV Buttons



Push up the flap on the front of the projection TV to reveal the front panel.

Overview of Remote Control Buttons



This button does not work on this set.

Muting the Sound
Press to mute TV sound.
Press again to restore the sound.

VCR on/off
Press to switch your VCR on or off.

Selecting TV mode
Press to switch off Teletext or video input.

Selecting Teletext
Press to switch on Teletext.

These buttons do not work on this set.

Selecting channels
Press to select channels.

For double-digit programme numbers, e.g. 23, press -/-- first, then the buttons 2 and 3. If you enter an incorrect first digit, this should be corrected by entering another digit (0-9) and then selecting -/-- button again to enter the programme number of your choice.

Selecting Sound mode
Press repeatedly to change the sound mode.

Selecting Picture mode
Press repeatedly to change the picture mode.

Adjusting TV Volume
Press to adjust the volume of the TV.

Displaying the time
Press to switch the time on or off (available only when teletext is broadcast).

VCR operation
For more details, please refer to the section "Remote Control of other Sony Equipment".

To Temporarily Switch Off projection TV
Press to temporarily switch off TV (the standby indicator ⏻ on the set lights up in red). Press again to switch on TV from standby mode.
To save energy we recommend switching off completely when TV is not in use.

⚠ After 15-30 minutes without a signal and without any button being pressed, the set switches automatically into standby mode.

Displaying On Screen Information
Press to display all on-screen indications.
Press again to cancel.

Selecting Input source
Press repeatedly until the desired input symbol of the source appears on the screen.

Back to the channel last watched
Press to watch the last channel selected (watched for at least 5 seconds).

Selecting Screen format
Press repeteadly to change the format of the screen (for more details, please refer to the section "Changing the Screen format").

This button only works in Teletext mode.
Function ▣ associated to this button does not work with this set.

Joystick for menu selection
- ▲ Scroll Up
- ▼ Scroll Down
- ◄ Previous menu or selection
- ► Next menu or selection
- **OK** Confirms your selection

Selecting channels
Press to select the next or previous channel.

Displaying the menu system
Press to display the menu on the screen.
Press again to remove the menu display from the screen.

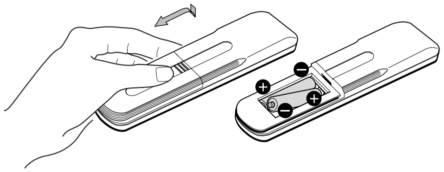
GB

ⓘ Besides TV functions, all coloured buttons as well as green symbols are also used for Teletext operation. For more details, please refer to the "Teletext" section of this instruction manual.

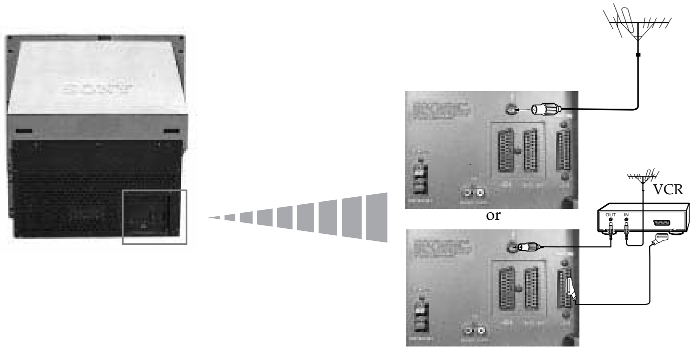
Getting Started - Installation

Inserting Batteries into the Remote Control

⚠ Make sure you insert the batteries using the correct polarities.
Always remember to dispose of used batteries in an environmental friendly way.



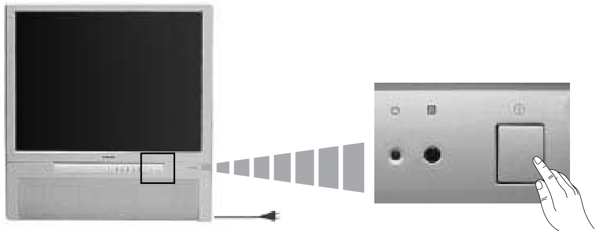
Connecting the Aerial and VCR



ⓘ The Scart lead is optional.
If you use this optional connection it can improve picture and sound quality when using a VCR.

⚠ If you do not use a SCART lead, after automatically tuning the projection TV refer to the “Manually Tuning the TV” section of this instruction manual, to the tune in the set to the ouput of you VCR. Also refer to your VCR instruction manual to find out how to find the output channel of your VCR.

Switching on the projection TV



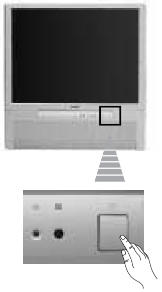
Push in the ⏻ On/Off switch on the front of the projection TV.

Connect the projection TV plug to the mains socket (220-240V AC, 50Hz).

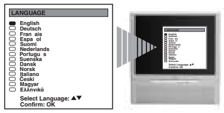
Getting Started - First Time Operation

Selecting Language

ⓘ Use this function to change the language of the menu screens.
The first time that you switch on your projection TV, the Language menu appears automatically.
However, if you need to change the language menu afterwards, select the menu Language in the 🧰 (PRESET) menu and proceed in the same way as described below.

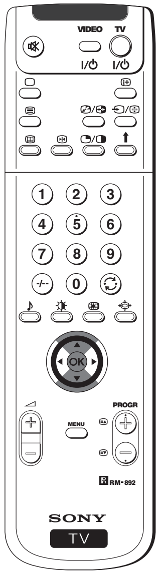


1 Press the ⏻ **on/off** button on your projection TV set to switch on your TV. The first time you press the on/off button on your TV set, the language menu displays automatically on the TV screen.



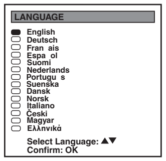
LANGUAGE
- ● English
- ○ Deutsch
- ○ Français
- ○ Español
- ○ Suomi
- ○ Nederlands
- ○ Português
- ○ Suenska
- ○ Dansk
- ○ Norsk
- ○ Italiano
- ○ Česki
- ○ Magyar
- ○ Ελληνικά

Select Language: ▲▼
Confirm: OK



2 Push the joystick on the remote control ▼ or ▲ to select the language, then press **OK** to confirm your selection.

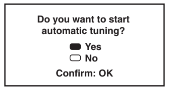
ⓘ If you select “French” language, the “Auto Tuning” process will start searching TV channels on “L” TV system (for France) and later B/G.



LANGUAGE
- ● English
- ○ Deutsch
- ○ Français
- ○ Español
- ○ Suomi
- ○ Nederlands
- ○ Português
- ○ Suenska
- ○ Dansk
- ○ Norsk
- ○ Italiano
- ○ Česki
- ○ Magyar
- ○ Ελληνικά

Select Language: ▲▼
Confirm: OK

The Auto Tuning menu appears on the projection TV screen in the selected language.



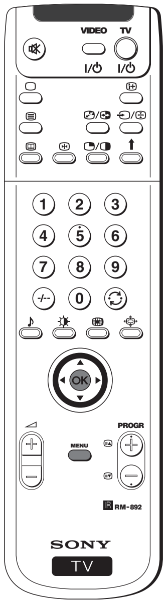
Do you want to start automatic tuning?
- ● Yes
- ○ No

Confirm: OK

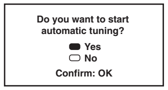
›››

Automatically Tuning the TV using the Remote Control

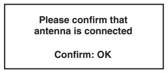
You need to tune the set to receive channels (TV Broadcast). By following the instructions below, this projection TV automatically searches and stores all available channels for you.
After having selected the language, a new menu appears automatically on the projection TV screen asking you to automatically tune the TV. However, if you need to change or repeat the tuning afterwards (e.g. when you move house), select the menu Auto Programme in the (PRESET) menu and proceed in the same way as described below or, please refer to the section "Automatically Tuning the TV" of this instruction manual.



1 Press the **OK** button on the remote control to select **YES**. A new menu appears automatically on the screen asking you to check that the antenna is connected.


Do you want to start automatic tuning?
● Yes
○ No
Confirm: OK

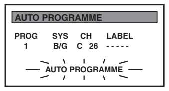
2 Confirm that the antenna is connected and then press the **OK** button.


Please confirm that antenna is connected

Confirm: OK

The automatic tuning starts and the message "AUTO PROGRAMME" flashes on the screen.

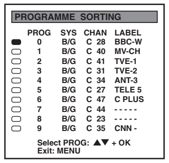
This procedure could take some minutes. Please, be patient and do not press any button, otherwise the automatic tuning will not be completed.


AUTO PROGRAMME

PROG	SYS	CH	LABEL
1	B/G	C 26	- - - - -

AUTO PROGRAMME

When the automatic tuning is finished, the Programme Sorting menu appears on the screen.


PROGRAMME SORTING

	PROG	SYS	CHAN	LABEL
●	0	B/G	C 28	BBC-W
○	1	B/G	C 40	MV-CH
○	2	B/G	C 41	TVE-1
○	3	B/G	C 31	TVE-2
○	4	B/G	C 34	ANT-3
○	5	B/G	C 27	TELE 5
○	6	B/G	C 47	C PLUS
○	7	B/G	C 44	- - - - -
○	8	B/G	C 23	- - - - -
○	9	B/G	C 35	CNN -

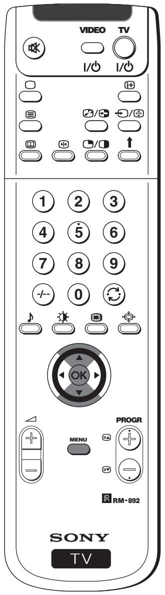
Select PROG: ▲▼ + OK
Exit: MENU

Notes:
- To stop the automatic tuning, press the MENU button.
- If you stop the automatic tuning by pressing the MENU button, the Programme Sorting menu does not appear automatically on the screen.

»»

Changing the Programme Order of the TV channels

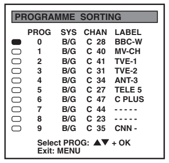
After all available channels (TV Broadcast) are captioned and stored, a new menu appears automatically on the screen to change the order in which the channels appear on the screen.
However, if you wish to rearrange the order of the channels afterwards, select the menu Programme Sorting in the (PRESET) menu and proceed in the same way as described in the b) section of this chapter.



a) If you do not wish to change the channel order:

1 Press the **MENU** button on the remote control to exit and return to the normal TV screen.

When the automatic tuning is finished, the Programme Sorting menu appears on the screen.

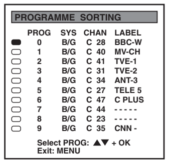

PROGRAMME SORTING

	PROG	SYS	CHAN	LABEL
●	0	B/G	C 28	BBC-W
○	1	B/G	C 40	MV-CH
○	2	B/G	C 41	TVE-1
○	3	B/G	C 31	TVE-2
○	4	B/G	C 34	ANT-3
○	5	B/G	C 27	TELE 5
○	6	B/G	C 47	C PLUS
○	7	B/G	C 44	- - - - -
○	8	B/G	C 23	- - - - -
○	9	B/G	C 35	CNN -

Select PROG: ▲▼ + OK
Exit: MENU

b) If you wish to change the channel order:

1 Push the joystick on the remote control to ▼ or ▲ to select the programme number with the channel (TV Broadcast) you wish to rearrange, then press **OK**.

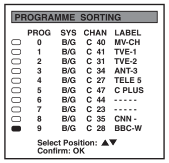

PROGRAMME SORTING

	PROG	SYS	CHAN	LABEL
●	0	B/G	C 28	BBC-W
○	1	B/G	C 40	MV-CH
○	2	B/G	C 41	TVE-1
○	3	B/G	C 31	TVE-2
○	4	B/G	C 34	ANT-3
○	5	B/G	C 27	TELE 5
○	6	B/G	C 47	C PLUS
○	7	B/G	C 44	- - - - -
○	8	B/G	C 23	- - - - -
○	9	B/G	C 35	CNN -

Select PROG: ▲▼ + OK
Exit: MENU

2 Push the joystick to ▼ or ▲ to select the new programme number position for your selected channel (TV Broadcast), then press **OK**.

The selected channel now moves to its new programme position and the other channels move accordingly.


PROGRAMME SORTING

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	MV-CH
○	1	B/G	C 41	TVE-1
○	2	B/G	C 31	TVE-2
○	3	B/G	C 34	ANT-3
○	4	B/G	C 27	TELE 5
○	5	B/G	C 47	C PLUS
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	CNN -
●	9	B/G	C 28	BBC-W

Select Position: ▲▼
Confirm: OK

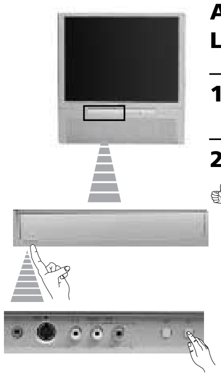
3 Repeat steps 1 and 2 if you wish to change the order of the other channels.

4 Press the MENU button to exit and return to the normal TV screen.

Your projection TV is now ready for use.

Adjusting Colour Registration (Convergence)

ⓘ Due to the earth's magnetism, the picture might become undefined and you could see different colours on the outlines of the images. In that case, proceed as follows:

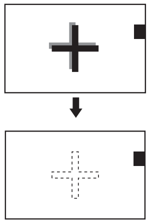


Auto converge the Red, Green, and Blue Lines

1 Push up the flap on the front of the projection TV to reveal the front control panel.

2 Press ⊕ button on the projection TV.

The Auto Convergence function works for about 30 seconds. When the white cross disappears from the screen, your projection TV is ready for use.

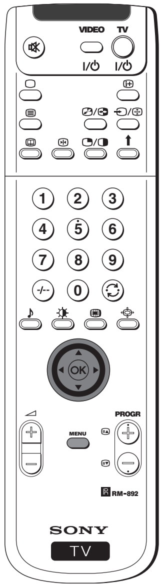


Notes:

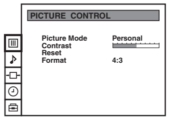
The Auto Convergence function does not work:

- when no signal is input.
- when the input signal is weak.
- when the screen is exposed to spotlights or direct sunlight.
- when you watch the teletext broadcast.

If you wish a more accurate convergence adjustment

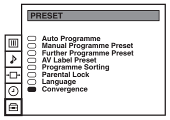

VIDEO
TV
1
2
3
4
5
6
7
8
9
-/--
0
OK
PROGR
MENU
RM-892
SONY
TV

1 Press the **MENU** button on the remote control to display the menu on the screen.


PICTURE CONTROL
Picture Mode
Contrast
Reset
Format
Personal
4:3

2 Push the joystick to ▼ to select the symbol ⊟, then push to ▶ to enter to the **PRESET** menu.

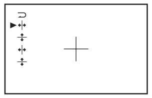
3 Push the joystick to ▼ or ▲ or 4 to select Convergence, then push to ▶.


PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

4 Push the joystick to ▼ or ▲ to select "the line" (vertical and horizontal lines in red and blue) you want to adjust.

✛ : red vertical line (left/right adjustment)
✛ : red horizonta line (up/down adjustment)
✛ : blue vertical line (left/right adjustment)
✛ : blue horizontal line (up/down adjustment)

Then press the **OK** button.



5 Push the joystick repeatedly to ▼, ▲, ◀ or ▶ to converge the selected line with the green line in the centre, then press **OK** to confirm.

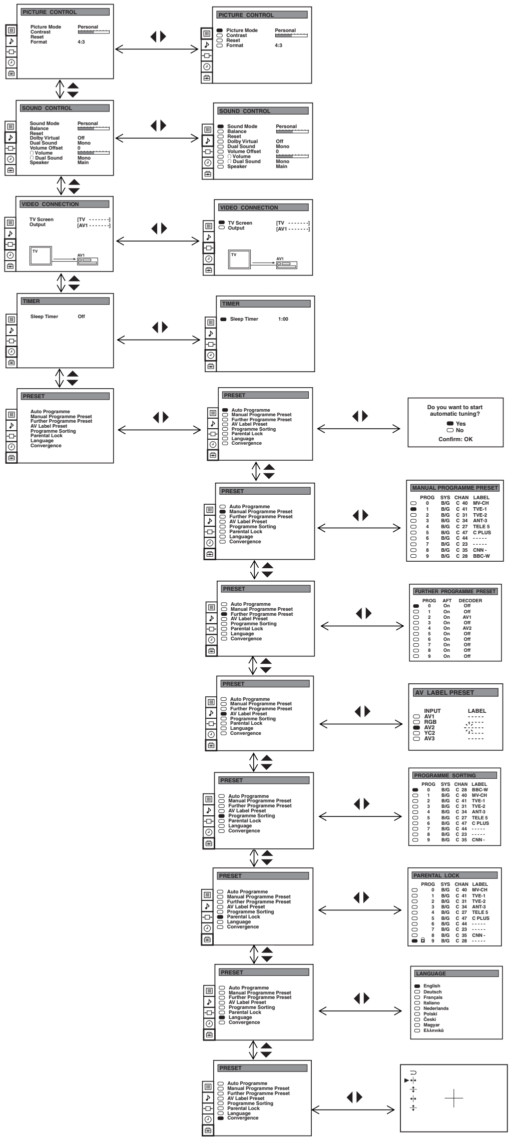
6 Repeat steps 4 and 5 to adjust the other lines, until all the lines have overlapped to form a white cross.

7 Press the **MENU** button to exit and return to the normal TV screen. Your projection TV is ready for use.

Your projection TV is ready for use.

Adjusting Colour Registration (Convergence)

MENU Press the MENU button on the remote control to display the menu on the screen.


PICTURE CONTROL
SOUND CONTROL
VIDEO CONNECTION
TIMER
PRESET
Do you want to start automatic tuning?
Yes
No
Confirm: OK
MANUAL PROGRAMME PRESET
FURTHER PROGRAMME PRESET
AV LABEL PRESET
PROGRAMME SORTING
PARENTAL LOCK
LANGUAGE

(For different adjustments, please refer to the section "Adjusting the Picture")

(For different adjustments, please refer to the section "Adjusting the Sound")

(For more details, please refer to the section "Selecting the output source for the Euro AV connectors")

(For more details, please refer to the section "Using the Sleep Timer")

(For more details, please refer to the section "Automatically Tuning the TV using the Remote Control")

(For more details, please refer to the section "Manually Tuning the TV")

(For more details, please refer to the section "Using the Further Programme Preset function")

(For more details, please refer to the section "Using the AV Label Preset function")

(For more details, please refer to the section "Changing the Programme Order of the TV channels")

(For more details, please refer to the section "Locking Programmes")

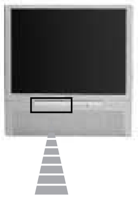
(For more details, please refer to the section "Selecting Language")

(For more details, please refer to the section "Adjusting Colour Registration Convergence)"

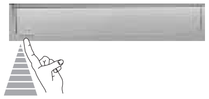
Automatically Tuning the TV

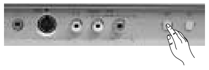
Besides the explanation in the section “Automatically Tuning the TV using the Remote Control“, by following the instructions below, this projection TV also searches and stores automatically all available channels using just one button of the projection TV set and one button of the remote control.

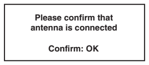
1 Push up the flap on the front of the projection TV to reveal the front control panel.



2 Press and hold in the ⏭ button on the TV set for some seconds, until a menu appears automatically on the screen asking you to check that antenna is connected.



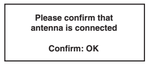




Please confirm that
antenna is connected

Confirm: OK

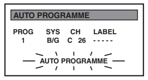
3 Confirm that the antenna is connected and then press the **OK** button on the remote control.



Please confirm that
antenna is connected

Confirm: OK

The automatic tuning starts and the message "AUTO PROGRAMME" flashes on the screen.

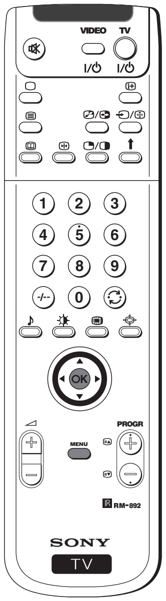


AUTO PROGRAMME

PROG	SYS	CH	LABEL
1	B/G	C 26	- - - - -

AUTO PROGRAMME

This procedure could take some minutes. Please, be patient and do not press any button, otherwise the automatic tuning will not be completed.



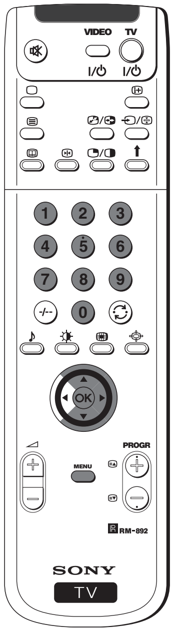
When the automatic tuning procedure is complete, the Programme Sorting menu appears on the screen:

- *If you do not wish to change the channel order, press the **MENU** button on the remote control to exit and return to the normal TV screen.*
- *If you wish to change the channel order, proceed in the same way as described in the chapter "Changing the Programme Order of the TV channels", section b).*

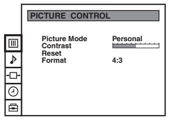
Note: To stop the automatic tuning, press the **MENU** button on the remote control.

Manually Tuning the TV

Use this function to preset channels or a video input source one by one to the programme order of your choice.



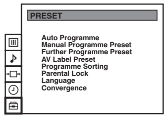
1 Press the **MENU** button on the remote control to display the menu on the screen.



PICTURE CONTROL

Picture Mode Personal
Contrast
Reset
Format 4:3

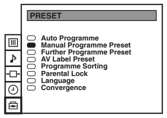
2 Push the joystick to ▼ to select the 🧰 symbol, then push to ▶ to enter to the **PRESET** menu.



PRESET

Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

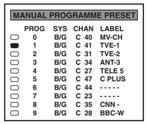
3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ▶ .



PRESET

○ Auto Programme
● Manual Programme Preset
○ Further Programme Preset
○ AV Label Preset
○ Programme Sorting
○ Parental Lock
○ Language
○ Convergence

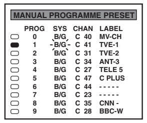
4 Push the joystick to ▼ or ▲ to select on which programme number you want to preset a channel, then push to ▶.



MANUAL PROGRAMME PRESET

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	MV-CH
●	1	B/G	C 41	TVE-1
○	2	B/G	C 31	TVE-2
○	3	B/G	C 34	ANT-3
○	4	B/G	C 27	TELE 5
○	5	B/G	C 47	C PLUS
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	CNN -
○	9	B/G	C 28	BBC-W

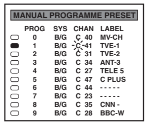
5 Push the joystick to ▼ or ▲ to select the TV Broadcast system (B/G for western european countries, D/K for eastern european countries, L for France or I for United Kingdom) or a video input source (AV1, AV2...), then push to ▶.



MANUAL PROGRAMME PRESET

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	MV-CH
●	1	B/G	C 41	TVE-1
○	2	B/G	C 31	TVE-2
○	3	B/G	C 34	ANT-3
○	4	B/G	C 27	TELE 5
○	5	B/G	C 47	C PLUS
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	CNN -
○	9	B/G	C 28	BBC-W

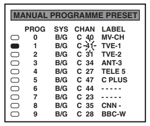
6 Push the joystick to ▼ or ▲ to select the channel tuning, "C" for terrestrial channels or "S" for cable channels, then push to ▶.



MANUAL PROGRAMME PRESET

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	MV-CH
●	1	B/G	C 41	TVE-1
○	2	B/G	C 31	TVE-2
○	3	B/G	C 34	ANT-3
○	4	B/G	C 27	TELE 5
○	5	B/G	C 47	C PLUS
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	CNN -
○	9	B/G	C 28	BBC-W

7 Press the number buttons to enter the channel number of the TV Broadcast or push the joystick to ▲ or ▼ to search for the next available channel.
If you do not wish to store this channel, push the joystick to ▲ or ▼ to continue searching for the desired channel.



MANUAL PROGRAMME PRESET

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	MV-CH
●	1	B/G	C 41	TVE-1
○	2	B/G	C 31	TVE-2
○	3	B/G	C 34	ANT-3
○	4	B/G	C 27	TELE 5
○	5	B/G	C 47	C PLUS
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	CNN -
○	9	B/G	C 28	BBC-W

8 If this is the desired channel you wish to store, press the **OK** button.

9 Repeat steps 4 to 8 if you wish to store more channels.

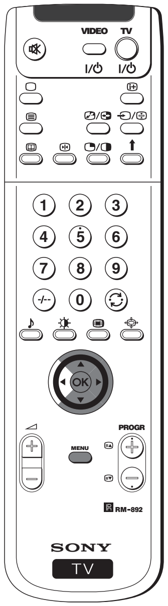
10 Press the **MENU** button to exit and return to the normal TV screen.

Your projection TV is now ready for use.

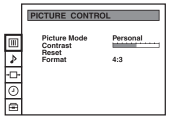
Advanced Operation - Advanced Presetting

Using the "Further Programme Preset" function

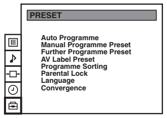
With this feature you can:
a) Even normally the automatic fine tuning (AFT) is operating, however you can manually fine-tune the TV to obtain a better picture reception if the picture is distorted or
b) preset the AV3 output for the programme positions of channels with scrambled signals (eg from a pay TV decoder). In this way a connected VCR records the unscrambled signal.


VIDEO
TV
PROGR
MENU
RM-892
SONY
TV

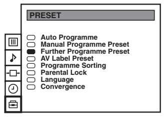
1 Press the **MENU** button on the remote control to display the menu on the screen.


PICTURE CONTROL
Picture Mode
Contrast
Reset
Format
Personal
4:3

2 Push the joystick to ▼ to select the 🧰 symbol, then push to ▶ to enter to the **PRESET** menu.


PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

3 Push the joystick to ▼ or ▲ to select **Further Programme Preset**, then push to ▶ .

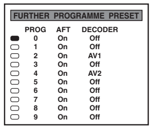

PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

4 Push the joystick to ▼ or ▲ to select the relevant programme number, then push to ▶ repeatedly to select:

a) **AFT** or

b) **DECODER**.

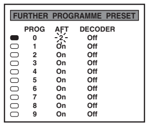
The selected item changes colour.



FURTHER PROGRAMME PRESET

	PROG	AFT	DECODER
●	0	On	Off
○	1	On	Off
○	2	On	AV1
○	3	On	Off
○	4	On	AV2
○	5	On	Off
○	6	On	Off
○	7	On	Off
○	8	On	Off
○	9	On	Off

5 a) **AFT**
Push the joystick to ▼ or ▲ to fine tune the channel frequency over a range of -15 to +15, then press the **OK** button.
Repeat steps 4 and 5a) if you wish to fine tune other channels.

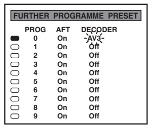


FURTHER PROGRAMME PRESET

	PROG	AFT	DECODER
●	0	-2-	Off
○	1	On	Off
○	2	On	Off
○	3	On	Off
○	4	On	Off
○	5	On	Off
○	6	On	Off
○	7	On	Off
○	8	On	Off
○	9	On	Off

b) **DECODER**
Push the joystick to ▼ or ▲ to select **AV3** and press the **OK**.

The picture from the decoder connected to the Euro AV ⊖3 on the back of the projection TV will appear on this programme number.
Repeat steps 4 and 5b) to preset the AV3 output for other programme positions.



FURTHER PROGRAMME PRESET

	PROG	AFT	DECODER
●	0	On	-AV3-
○	1	On	Off
○	2	On	Off
○	3	On	Off
○	4	On	Off
○	5	On	Off
○	6	On	Off
○	7	On	Off
○	8	On	Off
○	9	On	Off

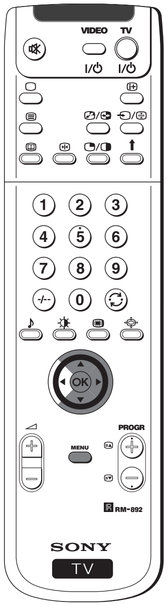
6 Press the **MENU** button to exit and return to the normal TV screen.

Your projection TV is now ready for use.

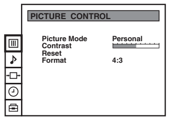
Advanced Operation - Advanced Presetting

Locking Programmes

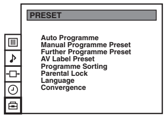
This feature enables you to prevent undesirable broadcasts appearing on the screen. We suggest you use this function to prevent children from watching programmes you consider unsuitable.


VIDEO
TV
PROGR
MENU
RM-892
SONY
TV

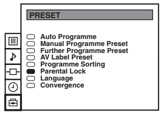
1 Press the **MENU** button on the remote control to display the menu on the screen.


PICTURE CONTROL
Picture Mode
Contrast
Reset
Format
Personal
4:3

2 Push the joystick to ▼ to select the 🧰 symbol, then push to ▶ to enter to the **PRESET** menu.

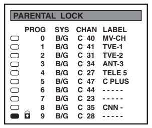

PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

3 Push the joystick to ▼ or ▲ to select **Parental Lock**, then push to ▶ .


PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

4 Push the joystick to ▼ or ▲ to select the programme number with the channel you wish to block, then press the **OK** button.

The 🔒 symbol appears before the programme position to indicate this programme is now blocked.
To unblock the programme, press the OK button again. The 🔒 symbol disappears.



PARENTAL LOCK

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	MV-CH
○	1	B/G	C 41	TVE-1
○	2	B/G	C 31	TVE-2
○	3	B/G	C 34	ANT-3
○	4	B/G	C 27	TELE 5
○	5	B/G	C 47	C PLUS
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	CNN -
● 🔒	9	B/G	C 28	- - - - -

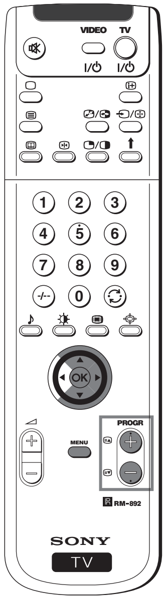
5 Repeat step 4 if you wish to block other channels.

6 Press the **MENU** button to exit and return to the normal TV screen.

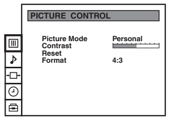
When you select a blocked programme the screen appears in black, with 🔒 symbol.

Skipping Programme positions

You can programme this projection TV to skip any unwanted programme numbers when they are selected with the PROGR +/- buttons. To cancel this function afterwards, proceed in the same way as described below by selecting the appropriate TV system (B/G, D/K, L or I) instead of "- - -" in step 5.

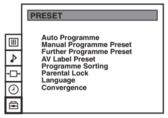

VIDEO
TV
PROGR
MENU
RM-892
SONY
TV

1 Press the **MENU** button on the remote control to display the menu on the screen.

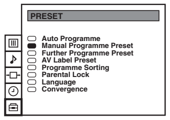

PICTURE CONTROL

Picture Mode Personal
Contrast
Reset
Format 4:3

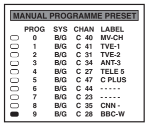
2 Push the joystick to ▼ to select the 🧰 symbol, then push to ▶ to enter to the **PRESET** menu.


PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ▶ .

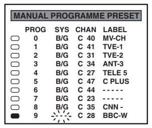

PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

4 Push the joystick to ▼ or ▲ to select the programme position you want to skip, then push to ▶ to enter to the **SYS** column.


MANUAL PROGRAMME PRESET

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	MV-CH
○	1	B/G	C 41	TVE-1
○	2	B/G	C 31	TVE-2
○	3	B/G	C 34	ANT-3
○	4	B/G	C 27	TELE 5
○	5	B/G	C 47	C PLUS
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	CNN -
●	9	B/G	C 28	BBC-W

5 Push the joystick to ▼ to select "- - -", then press the **OK** button to store.


MANUAL PROGRAMME PRESET

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	MV-CH
○	1	B/G	C 41	TVE-1
○	2	B/G	C 31	TVE-2
○	3	B/G	C 34	ANT-3
○	4	B/G	C 27	TELE 5
○	5	B/G	C 47	C PLUS
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	CNN -
●	9	- - -	C 28	BBC-W

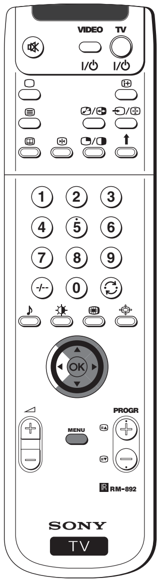
6 Repeat steps 4 and 5 to skip other unused programme positions.

7 Press the **MENU** button to exit and return to the normal TV screen.

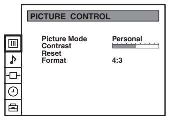
*When changing channels (TV Broadcasts) with the **PROGR +/-** buttons, the skipped programme positions do not appear. You can, however, still select them using the number buttons.*

Labelling a channel

Names for channels (TV Broadcasts) are usually taken automatically from Teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers). Using this function, you can easily identify which channel (TV Broadcasts) or video source you are watching.

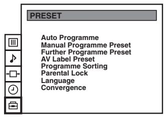

VIDEO
TV
PROGR
MENU
RM-892
SONY
TV

1 Press the **MENU** button on the remote control to display the menu on the screen.

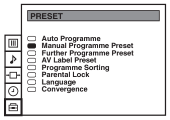

PICTURE CONTROL

Picture Mode Personal
Contrast
Reset
Format 4:3

2 Push the joystick to ▼ to select the 🧰 symbol, then push to ▶ to enter to the **PRESET** menu.

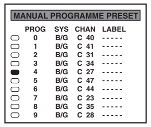

PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

3 Push the joystick to ▼ or ▲ to select **Manual Programme Preset**, then push to ▶.


PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

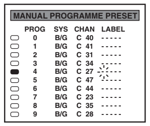
GB

4 Push the joystick to ▼ or ▲ to select the programme number with the channel you wish to name.


MANUAL PROGRAMME PRESET

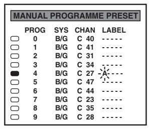
	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	- - - - -
○	1	B/G	C 41	- - - - -
○	2	B/G	C 31	- - - - -
○	3	B/G	C 34	- - - - -
●	4	B/G	C 27	- - - - -
○	5	B/G	C 47	- - - - -
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	- - - - -
○	9	B/G	C 28	- - - - -

5 Push the joystick to ▶ repeatedly until the first element of the **LABEL** column is highlighted.


MANUAL PROGRAMME PRESET

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	- - - - -
○	1	B/G	C 41	- - - - -
○	2	B/G	C 31	- - - - -
○	3	B/G	C 34	- - - - -
●	4	B/G	C 27	- - - - -
○	5	B/G	C 47	- - - - -
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	- - - - -
○	9	B/G	C 28	- - - - -

6 Push the joystick to ▼ or ▲ to select a letter or number (select "-" for a blank), then push to ▶ to confirm this character. Select the other four characters in the same way.


MANUAL PROGRAMME PRESET

	PROG	SYS	CHAN	LABEL
○	0	B/G	C 40	- - - - -
○	1	B/G	C 41	- - - - -
○	2	B/G	C 31	- - - - -
○	3	B/G	C 34	- - - - -
●	4	B/G	C 27	- A - - -
○	5	B/G	C 47	- - - - -
○	6	B/G	C 44	- - - - -
○	7	B/G	C 23	- - - - -
○	8	B/G	C 35	- - - - -
○	9	B/G	C 28	- - - - -

7 After selecting all the characters, press the **OK** button.

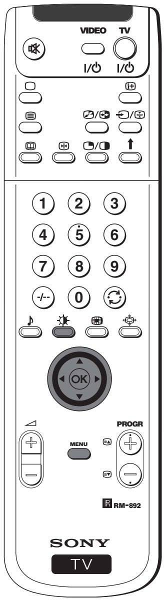
8 Repeat steps 4 to 7 if you wish to label other channels.

9 Press the **MENU** button to exit and return to the normal TV screen.

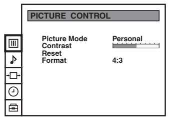
When you select a named channel, the name appears for a few seconds on the screen.

Adjusting the Picture

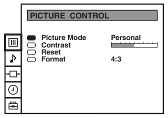
Although the picture is adjusted at the factory, you can modify it to suit your own taste.



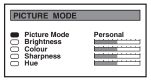
1 Press the **MENU** button on the remote control to display the menu on the screen.


PICTURE CONTROL
Picture Mode Personal
Contrast
Reset
Format 4:3

2 Push the joystick ▶ to enter the **PICTURE CONTROL** menu.


PICTURE CONTROL
● Picture Mode Personal
○ Contrast
○ Reset
○ Format 4:3

3 Push the joystick to ▼ or ▲ to select the item you wish to change, then push to ▶.
Refer to the table below to chose the item and for the effect of each control:


PICTURE MODE
● Picture Mode Personal
○ Brightness
○ Colour
○ Sharpness
○ Hue

Picture Mode ▶	**Picture Mode** ▶	Personal (for individual settings)	
		▶ Movie (for films)	
		▶ Live (for live broadcast programmes)	
	▼ **Brightness***	◀ Darker	▶ Brighter
	▼ **Colour***	◀ Less	▶ More
	▼ **Sharpness***	◀ Softer	▶ Sharper
	▼ **Hue****	◀ Greenish	▶ Reddish
Contrast	◀ Less	▶ More	
Reset	(OK) Resets picture to the factory preset levels.		
Format	(for detalis refer to the section "Changing the Screen Mode")		

* Can only be altered if Personal Picture Mode is selected.
** Only avalaible for NTSC colour signal (e.g: USA video tapes).

4 Push the joystick to ◀ or ▶ to alter the selected item, then press the **OK** button to store the new adjustment.

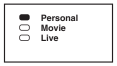
5 Repeat steps 3 and 4 to alter the other items.

6 Press the **MENU** button to exit and return to the normal TV screen.

Changing the Picture Mode Quickly

You can quickly change the Picture Mode without entering the Picture Control menu screen.

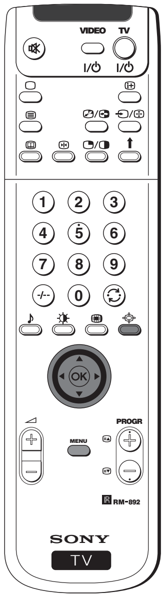
1 Press the ☼ button on the remote control to directly access the Picture Mode.


● Personal
○ Movie
○ Live

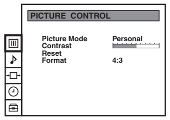
2 Push the joystick to ▼ or ▲ to select your desired picture mode (**Personal, Movie** or **Live**), then press the **OK** button to remove the display from the screen.

Changing the screen mode

Using this Screen Mode feature you can change the aspect ratio of the screen.

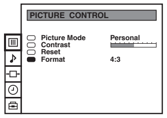


1 Press the **MENU** button on the remote control to display the menu on the screen.


PICTURE CONTROL
Picture Mode Personal
Contrast
Reset
Format 4:3

2 Push the joystick to ▶ button to enter the **PICTURE CONTROL** menu.

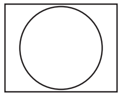
3 Push the joystick to ▼ to select **Format**.

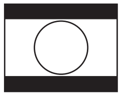

PICTURE CONTROL
○ Picture Mode Personal
○ Contrast
○ Reset
● Format 4:3

4 Push the joystick to ▶ repeatedly to select:

- **4:3:** conventional 4:3 picture.
- **16:9:** for 16:9 broadcasts.

Press rhe **OK** button.


4:3


16:9

5 Press the **MENU** button to exit and return to the normal TV screen.

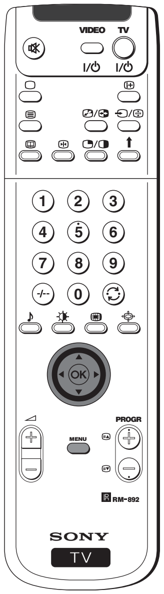
Changing the Picture Mode Quickly

You can quickly change the Picture Mode without entering the Picture Control menu screen.

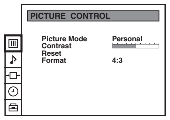
1 Press the ⊕ button on the remote control repeatedly to select your desired format screen mode (**4:3** or **16:9**).

Adjusting the Sound

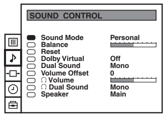
Although the sound is adjusted at the factory, you can modify it to suit your own taste.



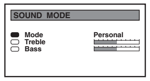
1 Press the **MENU** button on the remote control to display the menu on the screen.


PICTURE CONTROL
Picture Mode Personal
Contrast
Reset
Format 4:3

2 Push the joystick to ▼ to select the ♪ symbol, then push to ▶ to enter to the **SOUND CONTROL** menu.


SOUND CONTROL
Sound Mode Personal
Balance
Reset
Dolby Virtual Off
Dual Sound Mono
Volume Offset 0
🎧 Volume
🎧 Dual Sound Mono
Speaker Main

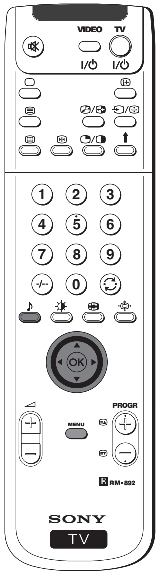
3 Push the joystick ▼ or ▲ to select the item you wish to change, then push to ▶.
Refer to the table below to chose the item and for the effect of each control.


SOUND MODE
Mode Personal
Treble
Bass

Sound Mode	▶ **Mode**	▶ Personal (for individual settings) ▶ Rock ▶ Jazz ▶ Pop	
	▼ **Treble***	◀ Less	▶ More
	▼ **Bass***	◀ Less	▶ More
Balance	◀ Left	▶ Right	
Reset	Ⓞ Resets sound to the factory preset levels.		
Dolby ** **Virtual**	▶ **Off:** Normal ▶ **On:** Simulates the sound effect of Dolby Pro Logic surround.		
Dual Sound	• For a stereo broadcast: ▶ Mono ▶ Stereo • For a bilingual broadcast: ▶ Mono (for mono channel if available) ▶ A (for channel 1) ▶ B (for channel 2)		
Volume Offset	◀ -12 .... ▶ +12 The channel volume level can be adjusted over a range of -12 to +12.		
Headphones: 🎧 **Volume**	◀ Less	▶ More	
🎧 **Dual Sound**	• For a stereo broadcast: ▶ Mono ▶ Stereo • For a bilingual broadcast: ▶ Mono (for mono channel if available) ▶ A (for channel 1) ▶ B (for channel 2)		
Speaker	▶ **Main:** sound from projection TV set ▶ **Centre in:** sound from external amplifier		

* Can be only altered if "Personal" mode is selected.

›››



4 Push the joystick ◀ or ▶ to alter the selected item, then press the **OK** button to store the new adjustment.

5 Repeat steps 3 and 4 to alter the other items.

6 Press the **MENU** button to exit and return to the normal TV screen.

**This TV has been designed to create “Dolby Surround” sound effect simulating the sound of four speakers with two speakers, in case the broadcasted audio signal is a Dolby Surround encoded programme. Besides that, the sound effect can also be improved by connecting your external amplifier (for details refer to “Connecting to external audio Equipment” on page 27).

** Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic” and the double-D symbol ▯▯ are trademarks of Dolby Laboratories.

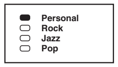
GB

Changing Sound Mode Quickly

You can quickly change Sound mode without entering the Sound Control menu screen.

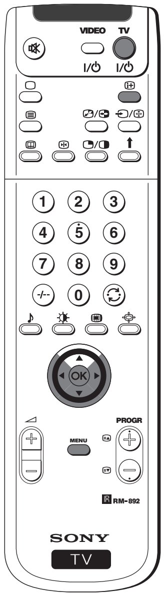
1 Press the ♪ button on the remote control to directly access to the Sound Mode.

2 Push the joystick to ▼ or ▲ to select your desired sound mode (**Personal, Rock, Jazz** or **Pop**), then press the **OK** button to remove the display from the screen.

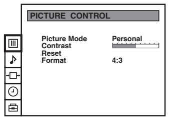

Personal
Rock
Jazz
Pop

Using the Sleep Timer

This function provides an overview of some of the features available on this set.

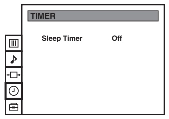


1 Press the **MENU** button on the remote control to display the menu on the screen.


PICTURE CONTROL

Picture Mode Personal
Contrast
Reset
Format 4:3

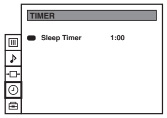
2 Push the joystick to ▼ button to select the ◴ symbol, then push to ▶ to enter to the **TIMER** menu.


TIMER

Sleep Timer Off

3 Push the joystick to ▶, then push to ◀ or ▶ repeatedly to set the time period delay

Off ▶ 0:30 ▶ 1:00..... 4:00 hours


TIMER

Sleep Timer 1:00

4 Press the **OK** button.

5 Press the **MENU** button to exit and return to the normal TV screen.

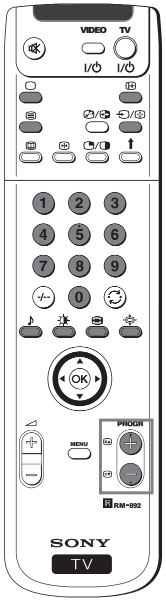
One minute before the projection TV switches into standby mode, the indication "0:01" is displayed on the screen automatically.

Notes:
- When watching the TV, press the ⓘ button on the remote control to display the time remaining.
- To return to normal operation from standby mode, press the **TV I/⏻** button on the remote control.

Viewing Teletext

Teletext is an information service transmitted by most TV stations.

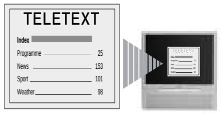
⚠ Make sure to use a TV channel with a strong signal, otherwise teletext errors may occur.



Selecting Teletext

1 Select the TV channel which carries the teletext service you wish to view.

2 Press the ≡ button on the remote control to switch on the teletext.

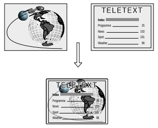


3 Input three digits for the page number, using the numbered buttons on the remote control. (if you have made a mistake, type in any three digits and then, re-enter the correct page number).

4 Press the ▭ button to switch off teletext.

Using other Teletext functions

TO	PRESS THE BUTTON
Access the next or preceding page	≡▲ for next page or ≡▼ for the preceding page
Superimpose teletext on to the TV	≡ Press ≡ again to cancel teletext mode.
Freeze a teletext page	⊜ Press ⊜ again to cancel the freeze.
Reveal concealed information (e.g. answer to a quiz)	ⓘ Press ⓘ again to cancel.



Using Fastext

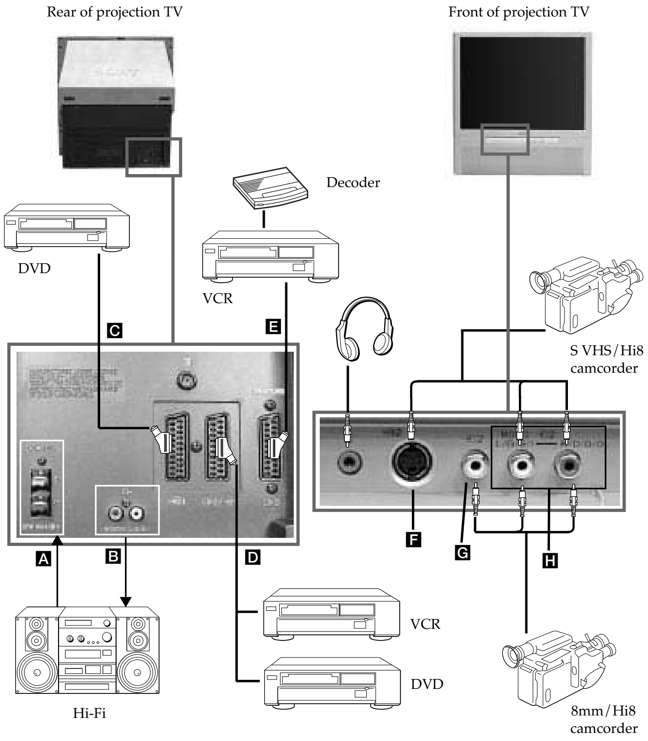
Fastext lets you access pages with one button stroke.

When Fastext is broadcast, a colour coded menu appears at the bottom of the teletext page. Press the colour button (red, green, yellow or blue) on the remote control to access the corresponding page.

GB

Connecting Optional Equipment

Using the following instructions, you can connect a wide range of optional equipment to your projection TV.



To avoid picture distortion:

- Do not connect equipment to F and G connectors at the same time.
- Do not connect any equipment on the front connectors together with D connector.

Acceptable input signal	Available output signal
A Centre speaker input. Set “Speaker” on the SOUND CONTROL menu to “Centre in”.	No outputs
B No inputs	Audio signal.
C Audio/video and RGB signal	Video/audio displayed on TV tuner.
D Audio/video and S video signal	Video/audio from selected source.
E Audio/video signal	Video/audio from selected source (the same output source as the →2/→S 2 connector)
F S Video signal	No output.
G Video signal	No output.
H Audio signal	No output.

Using Optional Equipment

Additional Information when connecting equipment

Connecting a VCR

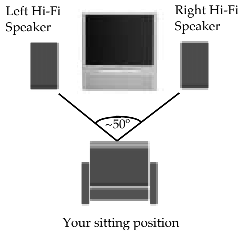
We recommend you connect your VCR to the D or E socket using a scart lead. If you do not have a scart lead, use the “Manually Tuning the TV” section of this instruction manual to tune in the VCR signal to TV programme number “0”.
If your video supports Smartlink please refer the "Smartlink" section of this instruction manual.

Connecting to External Audio Equipment

1 To listen to the audio of your projection TV on the Hi-Fi equipment:

Plug in your Dolby Prologic system decoder amplifier to the B sockets on the rear of the projection TV if you wish to amplify the audio output from the TV.
The output level from B sockets can be varied by adjusting the volume of the headphones. Refer to the “Adjusting the sound” section of this instruction manual to adjust the volume of the headphones.

To enjoy “Dolby Virtual” sound effect through your Hi-Fi equipment:
Place the speakers of your equipment in front of your sitting place and besides the TV set but keeping a distance of 50 cm from each speaker to the TV set.
Then by using the menu system, select the menu “Sound Control” and set “Dolby Virtual” to “On”.



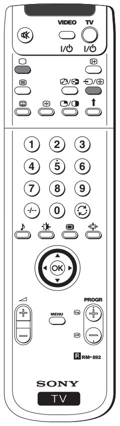
2 To listen to the Dolby amplifier equipment on the projection TV speakers:

Plug in your Hi-Fi equipment to the A socket on the rear of the projection TV if you wish to listen to the audio output from your Hi-Fi on the projection TV speaker. If you have a Dolby amplifier, connect the centre output from your amplifier to the A socket to use the projection TV as a centre speaker. Refer to the “Adjusting the Sound” section of this instruction manual and set the option "Speaker" to "Centre in".

For mono equipment

Connect the phono plug to the L/G/S/I socket on the front of the TV and select the → 2 input signal using the instructions on this page below.

Select and View the Input Signal



1 Connect your equipment to the designated projection TV socket, as it is indicated on the previous page.

2 Switch on the connected equipment.

3 Press the → button repeatedly on your remote control until the correct input symbol appears on the screen.

Symbol	Input signals
→1	• Audio/video input signal through the Euro AV connector C
→⋯	• RGB input signal through the Euro AV connector C
→2	• Audio/Video input signal through the Euro AV connector D or the phono sockets H and G.
→S 2	• Audio/S Video input signal through the Euro AV connector D or the sockets H and F.
→ 3	• Audio/Video input signal through the Euro AV connector E.

4 To return to the normal TV picture, press the ▢ button on the remote control.

Smartlink

Smartlink is a direct link between your projection TV set and a VCR.

For Smartlink you need:

- A VCR which supports Smartlink, NextView Link, Easy Link or Megalogic.

Megalogic is a trademark of Grundig Corporation.
EasyLink is a trademark of Philips Corporation.

- A fully-wired 21 pin SCART cable to connect your VCR to the Euro AV connector ⇨3 (SMARTLINK) on the rear of the Projection TV.

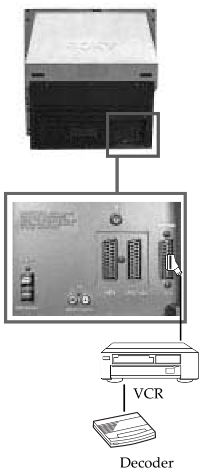
The features of Smartlink are:

- Tuning information such as the channel overview are downloaded from the Projection TV set to the VCR.
- Direct projection TV recording: While watching TV you need to press just one button on the VCR to record this programme.
- Projection TV in standby mode: Press the "Play ▶" button on your VCR to switch the TV automatically on.

⚠ If you have connected a decoder to a VCR which supports Smartlink feature, select the menu Further Programme Preset in the 🧰 (PRESET) menu and select **DECODER AV3** to each codified channel. For more details, please refer to the section "Using the Further Programme Preset function" of this instruction manual.

⚠ For more information on Smartlink, please refer to the Instruction Manual of your VCR.

Rear of projection TV



Remote Control of other Sony Equipment

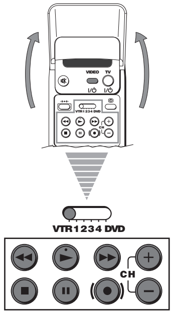
Using the buttons underneath the cover of the remote control you can control other Sony equipment.

1. Open the cover of the Remote Control.
2. Set the selector VTR 1234 DVD according to the equipment you want to control:

VTR 1	Beta VCR
VTR 2	8 mm VCR
VTR 3	VHS VCR
VTR 4	Digital Video (DCR-VX 1000/9000 E, VHR-1000)
DVD	Digital Video Disk

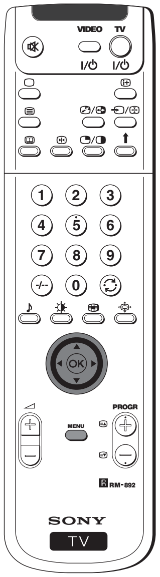
3. Use the buttons underneath the cover on the remote control to operate the equipment.

⚠
- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1234 DVD selector on the TV Remote Control.
- If the equipment does not have a certain function, the corresponding button on the remote control does not work.

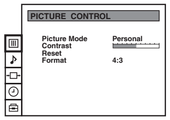


Selecting the output source for the Euro AV connectors

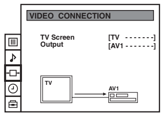
Using this function you can record on your VCR any signal coming from an external equipment connected to the Euro AV connectors ⇨2/⇨S 2 or ⇨3 placed on the rear of the projection TV.
In that case you have to select the output source as described below (if your VCR support Smartlink, this procedure is not necessary).



1 Press the **MENU** button on the remote control to display the menu on the screen.



2 Push the joystick to ▼ to select the ⇥□⇥ symbol, then push to ▶ button to enter to the **VIDEO CONNECTION** menu screen.



3 Push the joystick to ▼ or ▲ button to highlight:

TV Screen	(input source for the TV screen) or
Output	(output source available for ⇨2/⇨S 2 and ⇨3 Euro AV connectors).

Push the joystick to ▶ to confirm.

4 Push the joystick to ◀ or ▶ repeteadly to select the desired source:

TV Screen	**TV, AV1, RGB, AV2, YC2** or **AV3**
Output	**TV, AV1, AV2, YC2, AV3** or **AUTO**

Then press the **OK** button to confirm.

⚠ If you select "**AUTO**", the output signal will always be the same one that is displayed on the screen.

⚠ If you have connected a decoder, please remember to change back the Output to "**TV**" for correct unscrambling.

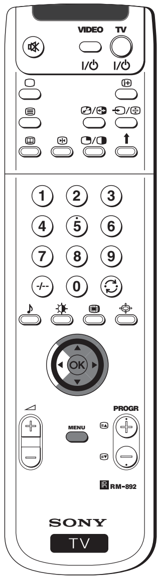
5 Press the **MENU** button to exit and return to the normal TV screen.

The selected signal is available for your optional equipment connected to the appropriate Euro AV connector.

Optional Connections

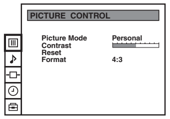
Using the AV Label Preset feature

This function enables you to designate a name to the optional equipment you have connected to the sockets of this projection TV. This name can be up to 5 characters (letters or numbers).



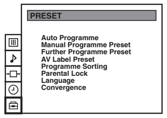
VIDEO
TV
MENU
PROGR
RM-892
SONY
TV

1 Press the **MENU** button on the remote control to display the menu on the screen.


PICTURE CONTROL

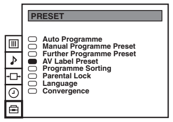
Picture Mode: Personal
Contrast
Reset
Format: 4:3

2 Push the joystick to ▼ to select the 🧰 symbol, then push to ▶ to enter to the **PRESET** menu screen.



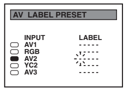
PRESET
Auto Programme
Manual Programme Preset
Further Programme Preset
AV Label Preset
Programme Sorting
Parental Lock
Language
Convergence

3 Push the joystick to ▼ or ▲ to select **AV Label Preset**, then push to ▶.



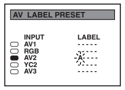
PRESET
○ Auto Programme
○ Manual Programme Preset
○ Further Programme Preset
● AV Label Preset
○ Programme Sorting
○ Parental Lock
○ Language
○ Convergence

4 Push the joystick to ▼ or ▲ select the input source you wish to name (eg AV2), then push to ▶ to highlight the first element of the **LABEL** column.


AV LABEL PRESET

INPUT	LABEL
○ AV1	- - - - -
○ RGB	- - - - -
● AV2	- - - - -
○ YC2	- - - - -
○ AV3	- - - - -

5 Push the joystick to ▼ or ▲ to select a letter or number (select "-" for a blank) then push to ▶ to confirm this character. Select the other four characters in the same way.


AV LABEL PRESET

INPUT	LABEL
○ AV1	- - - - -
○ RGB	- - - - -
● AV2	A - - - -
○ YC2	- - - - -
○ AV3	- - - - -

6 After selecting all the characters, press the **OK** button.

7 Repeat steps 4 to 6 if you wish to label other input sources.

8 Press the **MENU** button to exit and return to the normal TV screen.

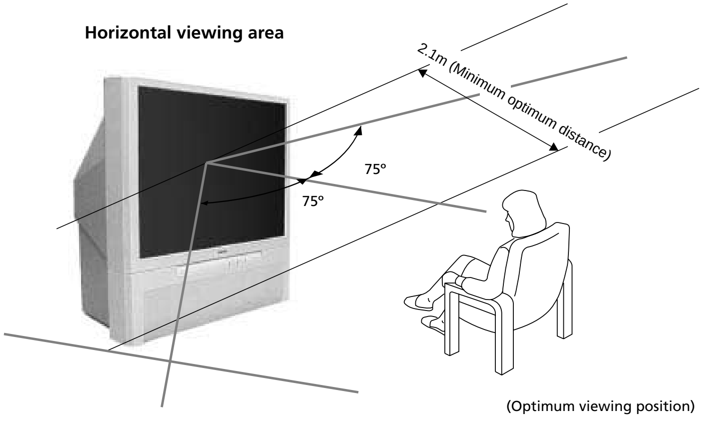
Whenever the equipment with the labeled input is selected for use, the name appears for a few seconds on the screen.

Additional Information

Optimum Viewing Area

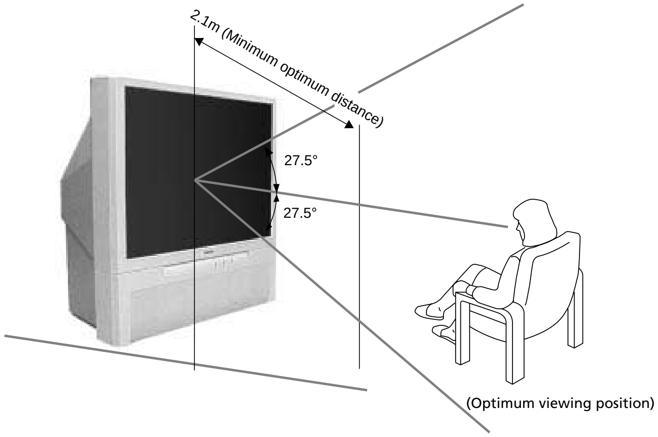
For the best picture quality, try to position the projection TV so that you can view the screen from within the areas shown below.

Horizontal viewing area



2.1m (Minimum optimum distance)
75°
75°
(Optimum viewing position)

Vertical viewing area



2.1m (Minimum optimum distance)
27.5°
27.5°
(Optimum viewing position)

Troubleshooting

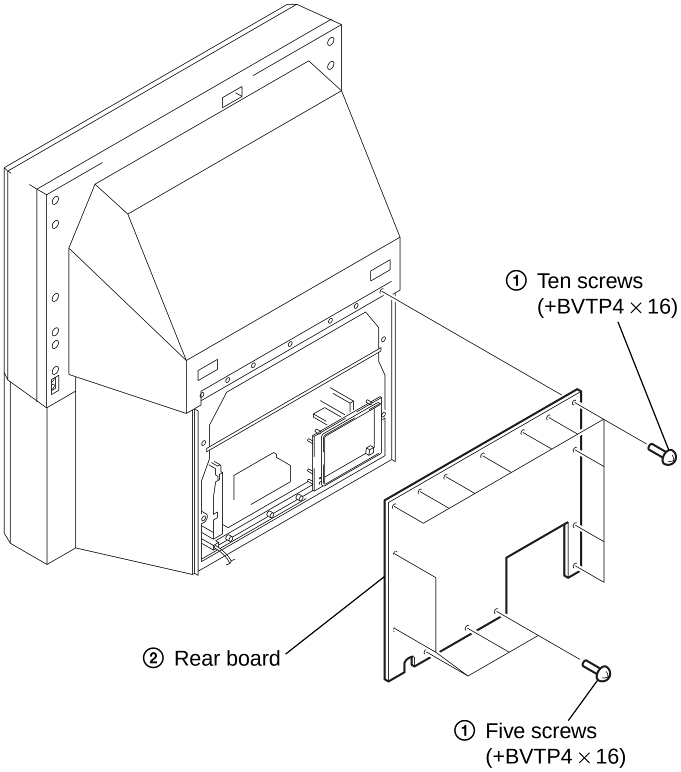
Here are some simple solutions to the problems which may affect the picture and sound.

Problem	**Solution**
No picture (screen is dark), no sound.	• Plug the projection TV in. • Press the ⏻ button on the front of the projection TV. • If the ⏻ indicator is on, press **TV I/⏻** button or a programme number button on the remote control. • Check the aerial connection. • Turn the projection TV off for 3 or 4 seconds and then turn it on again using the ⏻ button on the front of the projection TV.
Poor or no picture (screen is dark), but good sound.	• Using the MENU system, select the Picture Adjustment display. Adjust the brightness, picture and colour balance levels. • From the Picture Adjustment display select **Reset** to return to the factory settings.
Poor picture quality when watching a RGB video source.	• Press the ⇥ button repeatedly on the remote control until the RGB symbol ⇥ is displayed on the screen.
Good picture, no sound	• Press the ⊿ +/- button on the remote control. • If 🔇 is displayed on the screen, press the 🔇 button on the control. • Check that "**Main**" speaker is selected on the SOUND CONTROL menu.
No colour on colour programmes	• Using the MENU system, select the Picture Adjustment display. Adjust the colour balance. • From the Picture Adjustment disply select Reset to return to the factory settings.
Distorted picture when changing programmes or selecting teletext	• Turn off any equipment connected to the 21 pin Euro connectors on the rear of the TV.
Noisy picture when viewing TV channel	• Adjust Fine Tuning (AFT) to obtain better picture reception. For details, please refer to the section "Using the Further Programme Preset function"
Remote control does not function	• Replace the batteries.
The standby indicator ⏻ on the set flashes.	• Contact your nearest Sony service centre.

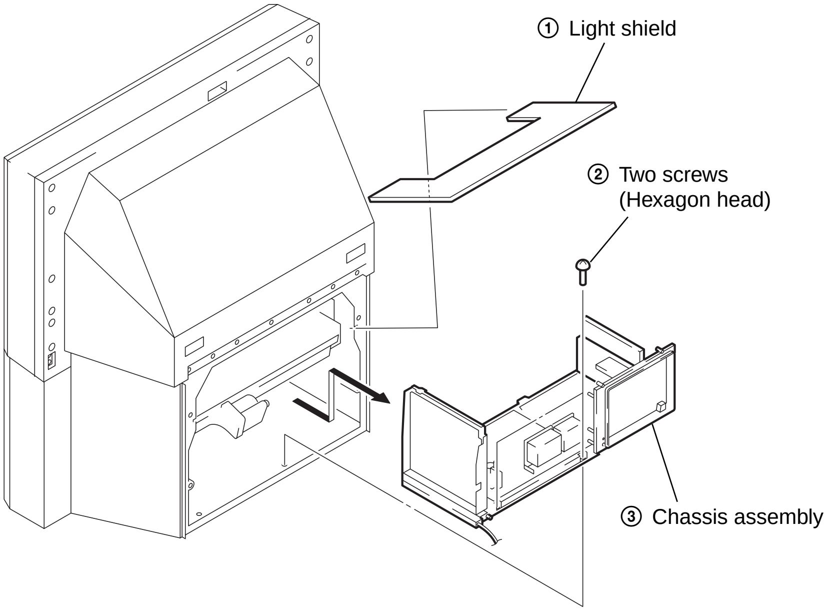
- **If you continue to have these problems, have your TV serviced by qualified personnel.**
- **NEVER open the casing yourself.**

SECTION 3
DISASSEMBLY

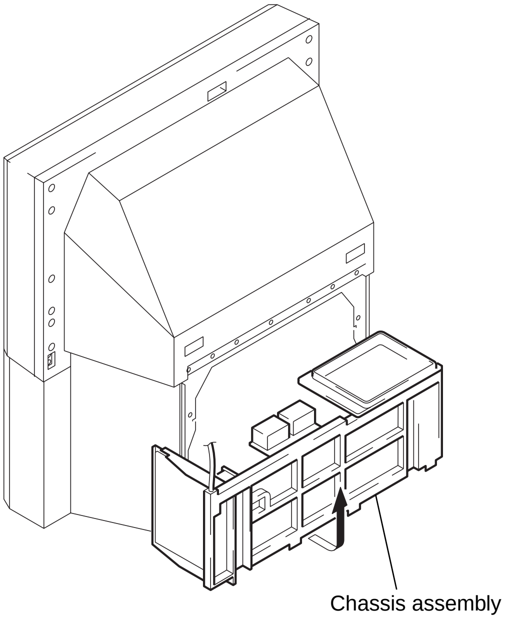
3-1. REAR BOARD REMOVAL


① Ten screws
(+BVTP4 × 16)
② Rear board
① Five screws
(+BVTP4 × 16)

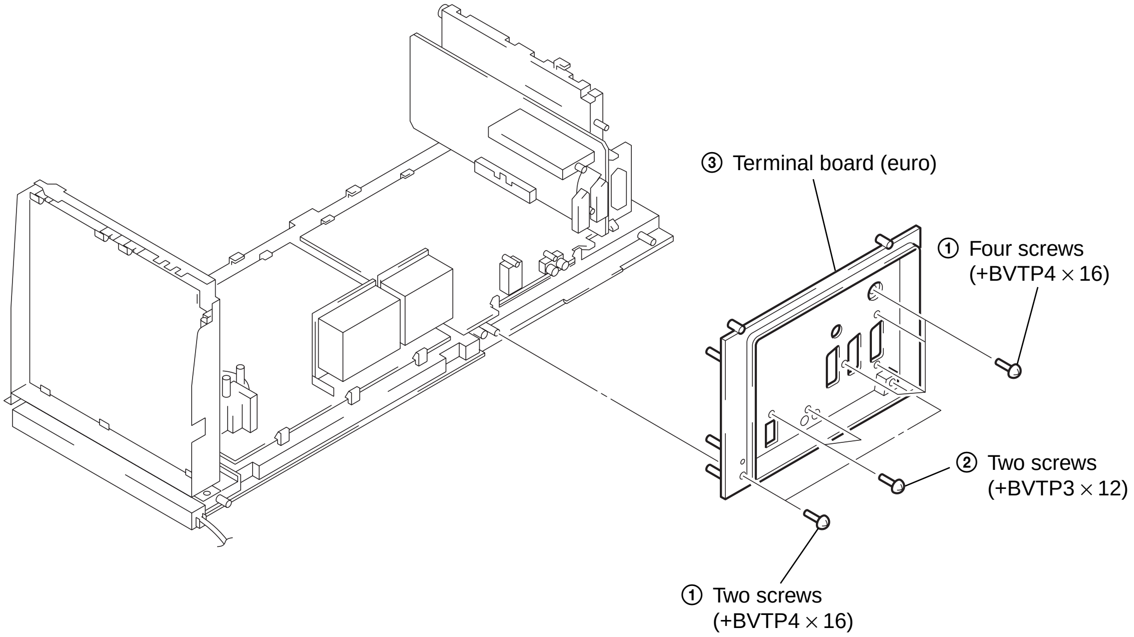
3-2. CHASSIS ASSEMBLY REMOVAL


① Light shield
② Two screws
(Hexagon head)
③ Chassis assembly

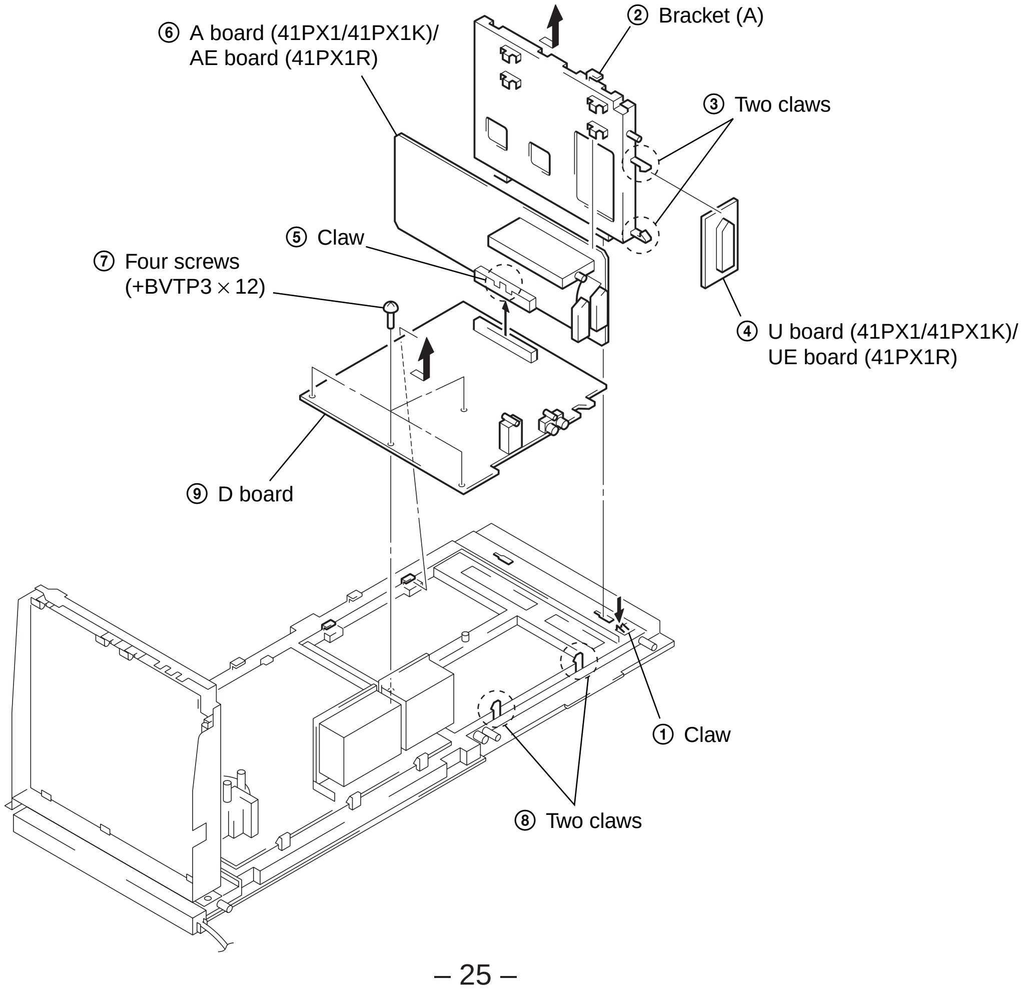
3-3. SERVICE POSITION


Chassis assembly

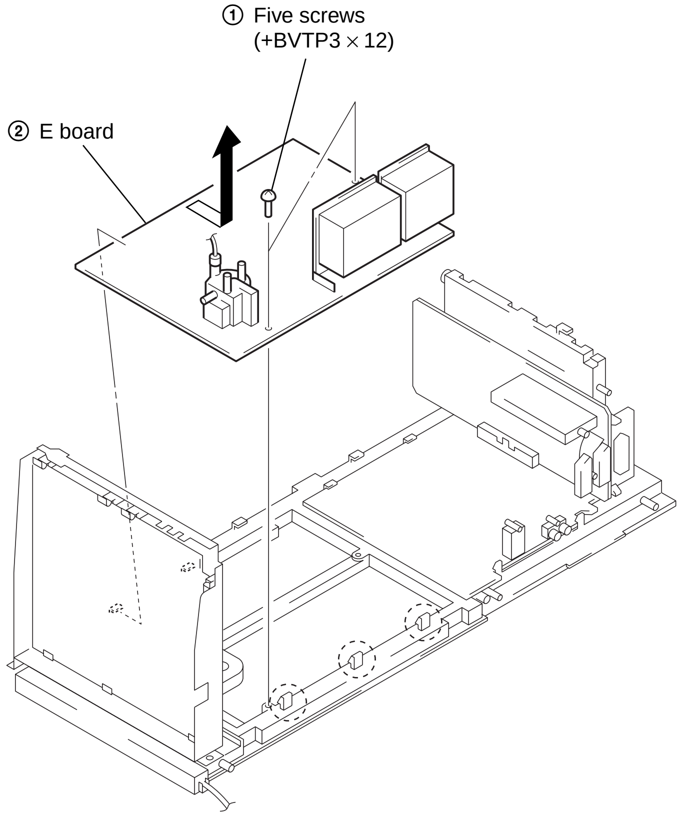
3-4. TERMINAL BOARD REMOVAL


③ Terminal board (euro)
① Four screws
(+BVTP4 × 16)
② Two screws
(+BVTP3 × 12)
① Two screws
(+BVTP4 × 16)

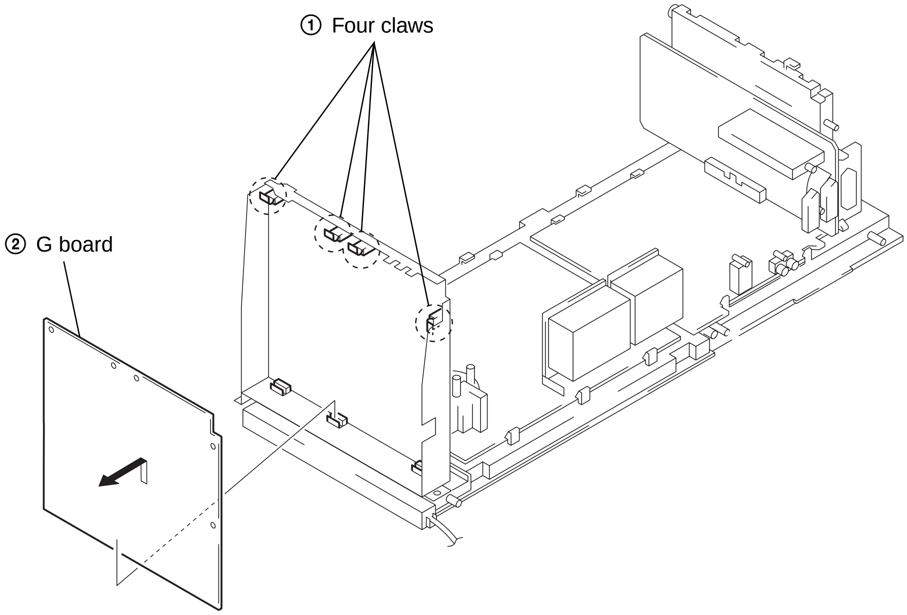
3-5. U (UE), A (AE) AND D BOARDS REMOVAL


⑥ A board (41PX1/41PX1K)/
AE board (41PX1R)
② Bracket (A)
③ Two claws
⑤ Claw
⑦ Four screws
(+BVTP3 × 12)
④ U board (41PX1/41PX1K)/
UE board (41PX1R)
⑨ D board
① Claw
⑧ Two claws

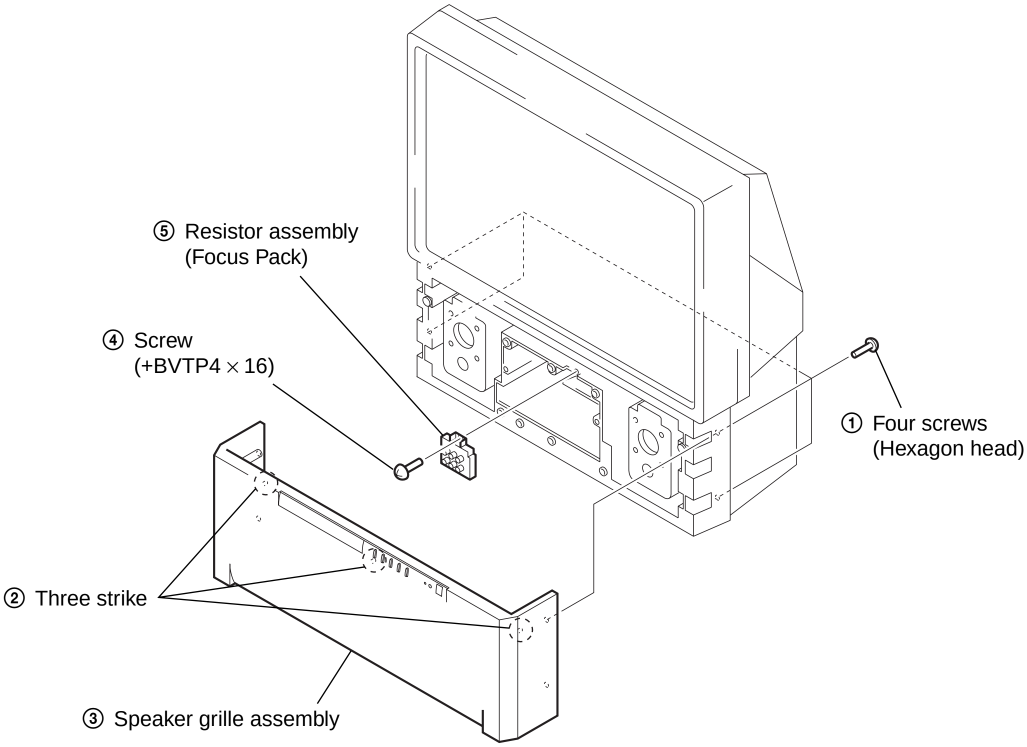
3-6. E BOARD REMOVAL


① Five screws
(+BVTP3 × 12)
② E board

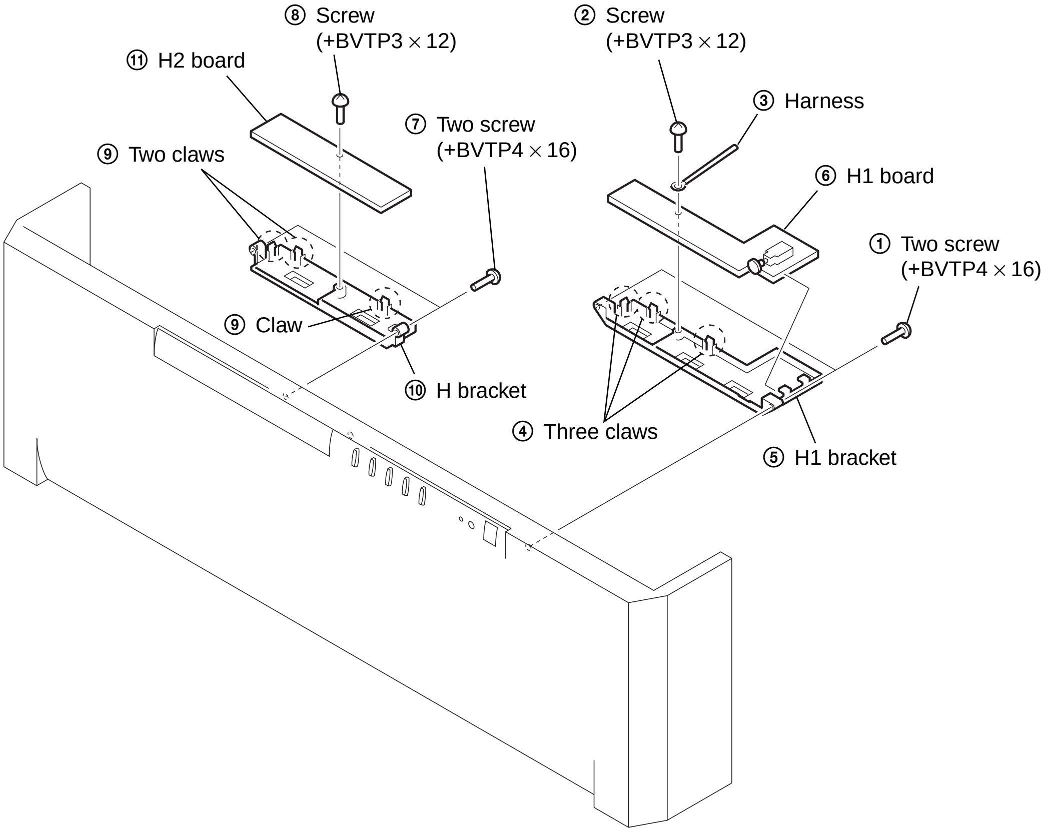
3-7. G BOARD REMOVAL


① Four claws
② G board

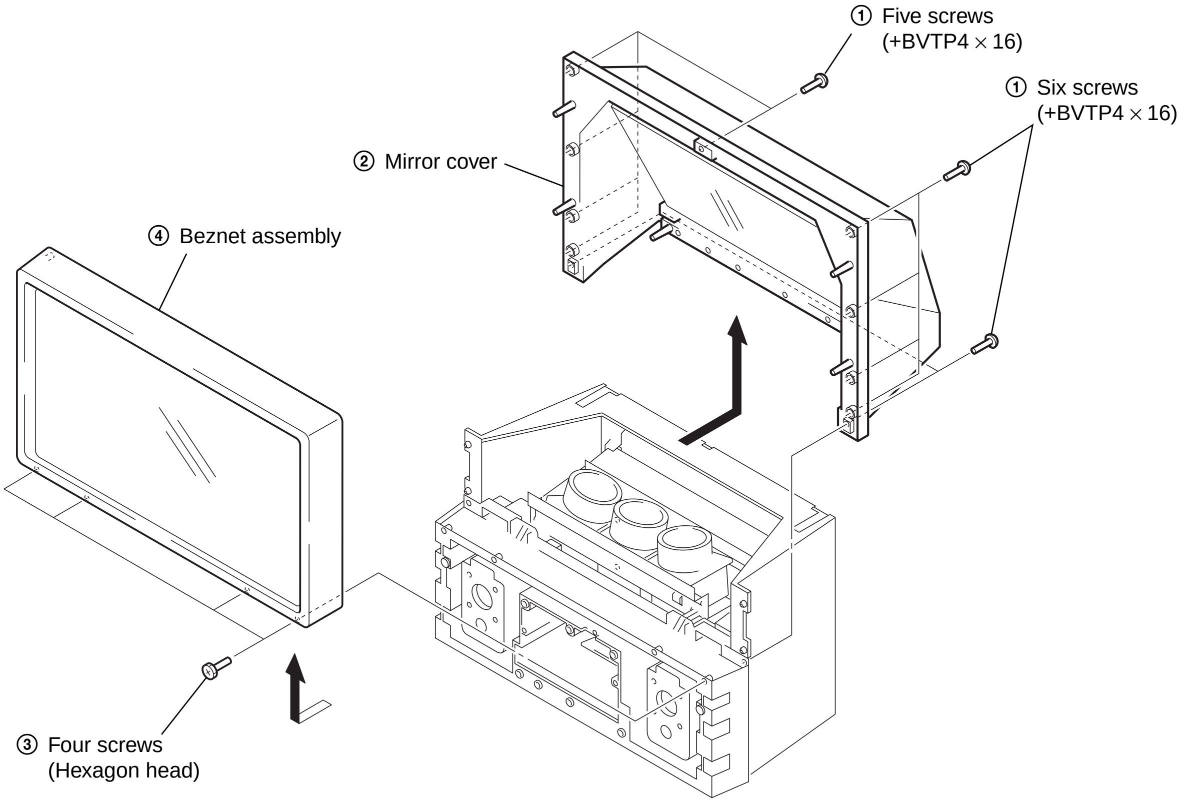
3-8. SPEAKER GRILLE AND RESISTOR ASSEMBLY (FOCUS PACK) REMOVAL


⑤ Resistor assembly (Focus Pack)
④ Screw (+BVTP4 × 16)
① Four screws (Hexagon head)
② Three strike
③ Speaker grille assembly

3-9. H1 AND H2 BOARDS REMOVAL

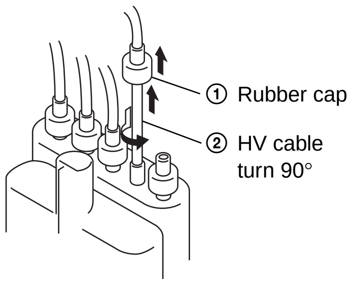

⑧ Screw (+BVTP3 × 12)
② Screw (+BVTP3 × 12)
⑪ H2 board
③ Harness
⑦ Two screw (+BVTP4 × 16)
⑨ Two claws
⑥ H1 board
① Two screw (+BVTP4 × 16)
⑨ Claw
⑩ H bracket
④ Three claws
⑤ H1 bracket

3-10. MIRROR COVER AND BEZNET ASSEMBLY REMOVAL

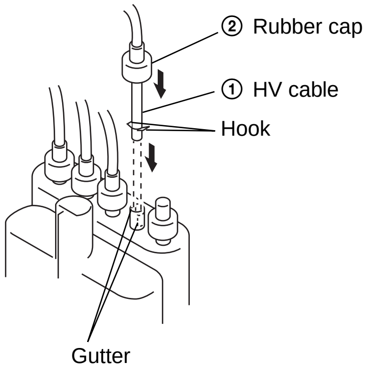

① Five screws
(+BVTP4 × 16)
① Six screws
(+BVTP4 × 16)
② Mirror cover
④ Beznet assembly
③ Four screws
(Hexagon head)

3-11. HIGH-VOLTAGE CABLE REMOVAL AND INSTALLATION

(1) Removal

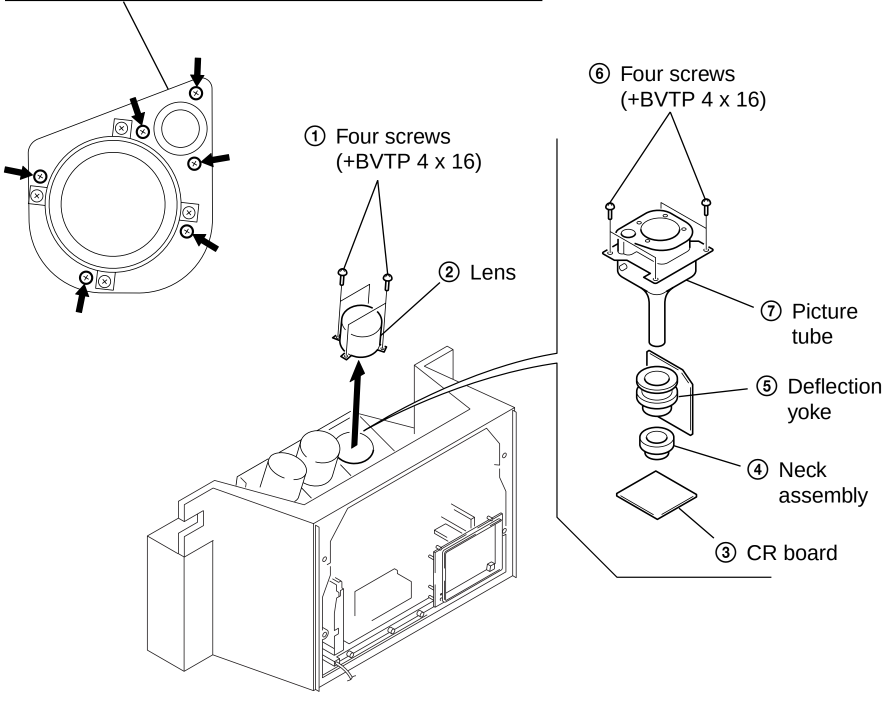

① Rubber cap
② HV cable
turn 90°

(2) Installation


② Rubber cap
① HV cable
Hook
Gutter

3-12. PICTURE TUBE REMOVAL

Removing the arrow-marked screw is strictly inhibited.
If removed, it may cause liquid spill.


⑥ Four screws
(+BVTP 4 x 16)
① Four screws
(+BVTP 4 x 16)
② Lens
⑦ Picture
tube
⑤ Deflection
yoke
④ Neck
assembly
③ CR board

SECTION 4
SET-UP ADJUSTMENTS

4-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the focus pack all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.

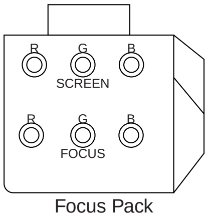
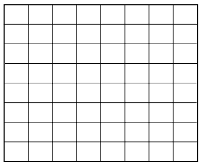


Fig. 4-1

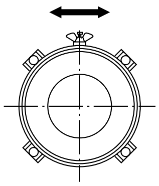
4-2. FOCUS ROUGH ADJUSTMENT

1. Loose the lens screw.
2. Set in the service mode. (Refer to SECTION 6.)
3. Place the caps on the red and blue lens so that only the green color is shown.
4. Press “MENU” on the Commander and select Convergence and OSD CHSW = “00” to display the test signal (crosshatch) on the screen.
5. Rotate the green lens and align to obtain the best lens focus at the center area.
6. Rotate the green focus VR on the focus pack and align to obtain the best electrical focus at the center area.
7. Perform the same alignment for red and blue lenses and electric focus.
8. Fix lens screw.



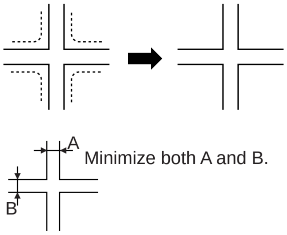
Test signal

Fig. 4-2



Lens

Fig. 4-3



Minimize both A and B.

Fig. 4-4

4-3. SCREEN (G2) ADJUSTMENT

1. Connect JIG (A) to 200 V and GND.
2. Select VIDEO1 mode without signals.
3. Connect JIG to the TP701(KR), TP731(KG) or TP761(KB) of CR board, CG board and CB board.
4. Adjust R, G and B screen voltage to until retrace line disappears with screen VR on the focus pack.

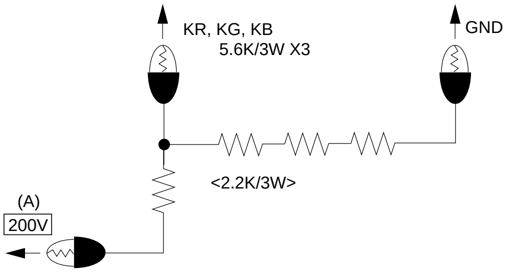
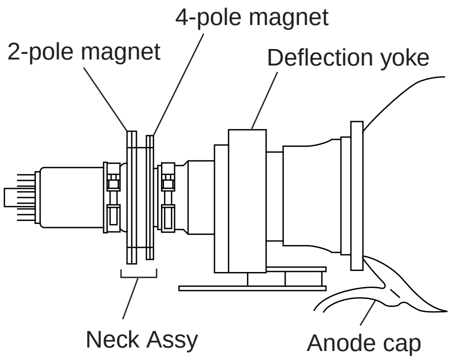


Fig. 4-5

4-4. DEFLECTION YOKE TILT ADJUSTMENT

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color.
3. Loosen the deflection yoke setscrew and align the tilt of the Deflection yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red and blue is aligned the same as was done for green.



Make sure deflection yoke is touching CRT closely.

Fig. 4-6

4-5. 2-POLE MAGNET ADJUSTMENT (GREEN AND RED)

1. Receive the Dot signal and set PICTURE to 80%, BRIGHTNESS to 50%.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the right and set to over focus to enlarge the spot.
4. Now align the 2-Pole Magnet so that the enlarged spot is in the center of the just focus spot.
   (Center of the dot does not move)
5. Align the green focus VR and set for just (precise) focus.
6. Perform the same alignment for red.

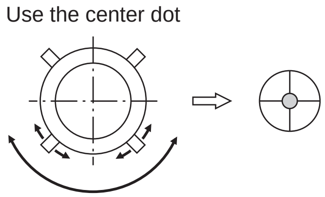


Fig. 4-7

4-6. 4-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal and set PICTURE to 80%, BRIGHTNESS to 50%.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the left and set to under focus to enlarge the spot.
4. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle for green and red.
5. Perform the same alignment for red and blue.

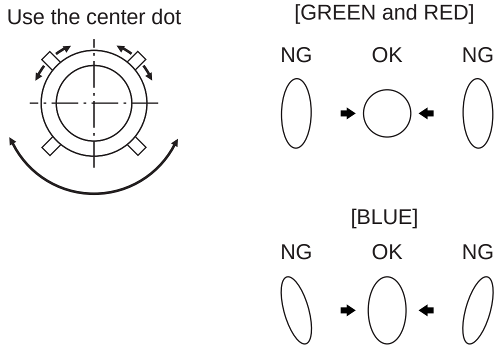


Fig. 4-8

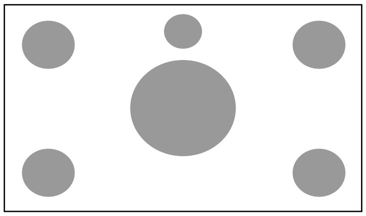
4-7. GREEN, RED AND BLUE FOCUS ADJUSTMENT

4-7-1. Green, Red and Blue Lens Focus Adjustment

1. Receive the Monoscope signal and set PICTURE to minimum, BRIGHTNESS to 50%.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green lens and adjust to obtain the best lens focus in all areas.
4. Fix lens screw.
5. Repeat above process for red and blue.

4-7-2. Green, Red and Blue Electrical Focus Adjustment

1. Receive the Monoscope signal and set PICTURE to minimum, BRIGHTNESS to 50%.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green focus VR on the focus pack and adjust to obtain the best electrical focus in all areas.
4. Repeat above process for red and blue.



Adjust Point : Circulars Areas

Fig. 4-9

SECTION 5

SAFETY RELATED ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram, always check hold-down voltage and if necessary re-adjust.

Part Replaced (⧓)
R1

Part Replaced (◪)	
E Board	C515, C516, C554, D504, D507, L506, Q502, R1, R514, R516, R517, T502, T504 (FBT)
G Board	IC6005

5-1. HV HOLD-DOWN ADJUSTMENT

1. Connect HV static voltmeter to HV Block.
2. Remove CN810 and connect External Power Supply to CN810 ② pin (+135 V) and ① pin (GND).

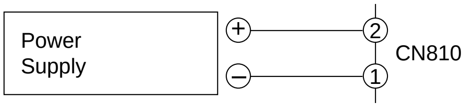
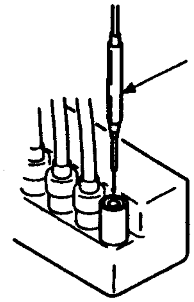


Fig. 5-1



Remove the cap off from the unused terminal and connect a HV static voltmeter there.

Fig. 5-2

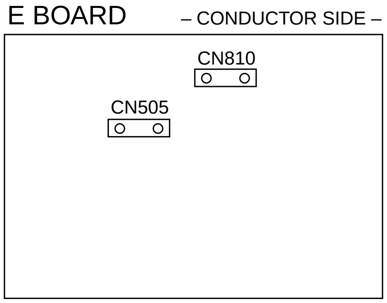


Fig. 5-3

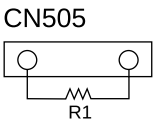


Fig. 5-4

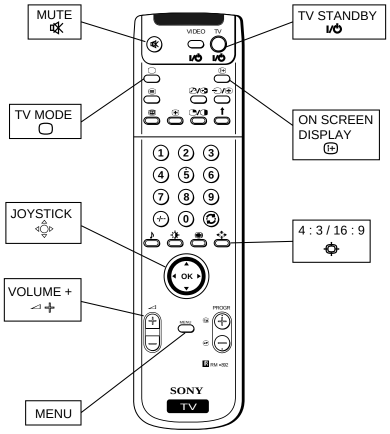
3. Turn on the set.
4. Receive the Dot signal and set PICTURE/BRIGHTNESS to minimum.
5. Slowly up the supply voltage from 0 V to 135 V until hold-down circuit works (picture disappear).
6. Read the HV static voltmeter of peak HV voltage.
   Spec : 33.7 to 36.0 KV
7. If Hold-down voltage is less than 33.7 KV then solder R1 = 820 K and check if the voltage is within the spec.
8. If hold-down voltage is over than 36.0 KV then take-off R514 and solder R1 = 9.1 K and check if the voltage is within the spec.

SECTION 6
ELECTRICAL ADJUSTMENTS

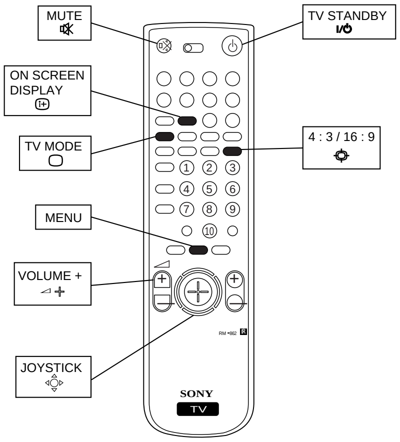
6-1. HOW TO ENTER THE SERVICE MODE

6-1-1. Adjustment Method with Commander

Service adjustment to this model can be performed with the supplied remote commander RM-892 (41PX1/41PX1K) or RM-862 (41PX1R).

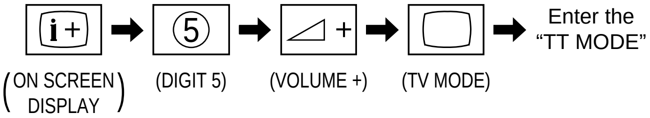

MUTE
TV STANDBY
TV MODE
ON SCREEN DISPLAY
JOYSTICK
4 : 3 / 16 : 9
VOLUME +
MENU
SONY
TV

RM-892 : 41PX1/41PX1K


MUTE
TV STANDBY
ON SCREEN DISPLAY
TV MODE
4 : 3 / 16 : 9
MENU
VOLUME +
JOYSTICK
SONY
TV

RM-862 : 41PX1R

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.


i+
⑤
+
Enter the “TT MODE”
(ON SCREEN DISPLAY)
(DIGIT 5)
(VOLUME +)
(TV MODE)

“TT - -” will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press “MENU” on the commander to obtain the following menu on the screen.
   (With some models, display items may be different from the following)

```
TEST MENU

    Picture Adjustment
    Geometry
    Wide
    IC Status
    MSP
    Dynamic Convergence
    Current TV Status
    Convergence
```

4. Move to the corresponding adjustment using the joystick (▲ or ▼ : up or down) on the commander.
5. Move the joystick to the right (▶) to enter the selected adjustment.
6. Press “◈ (OK)” to exit.
7. Before TURN OFF is necessary:
   DATA WRITE : Press “🔇 (MUTE)” + “⓪”
   DATA COPY : Press “i+ (ON SCREEN DISPLAY)” + “⓪”
8. Turn off the power to quit the service mode when adjustments are completed.

6-1-2. Screen Display on the Test Menu

(With some models, display items and contents may be different from the following)

Picture Adjustment

```
PICTURE ADJUSTMENT

     AFC Mode          1        0 - 3
     Ref Position      3        0 - 3
     SCP BGR           1        0 - 3
     SCP BGF           1        0 - 3
     Trap F0           0        0 - 15
     Sub Contrast      11       0 - 15
     Sub Colour        10       0 - 15
     Sub Brightness    13       0 - 63
     Green Drive       51       0 - 63
     Blue Drive        43       0 - 63
     Green Cutoff      8        0 - 15
     Blue Cutoff       10       0 - 15
     Gamma             1        0 - 3
     Pre / Overshoot   2        0 - 3
     Y Delay           3        0 - 7
     D Pic             ON       ON/OFF
     D Colur           OFF      ON/OFF
     DC Transfer       ON       ON/OFF
```

Geometry (∗ : No need to adjust)

```
GEOMETRY ADJUSTMENT

                   4:3  16:9
  V Size            15    15    0 - 63
  V Position        47    47    0 - 63
  S Correction      0     0     0 - 15
  V Linearity       12    12    0 - 15
  H Size            40    40    0 - 63
  H Position        15    15    0 - 15
  Pin Amp           18    20    0 - 63
  Pin Phase         12    12    0 - 15
  AFC Bow           8     8     0 - 15
  AFC Angle         9     9     0 - 15
∗ EHT V             1     1     0 - 3
∗ EHT H             0     0     0 - 3
  Lo Corn Pin       4     6     0 - 15
  Up Corn Pin       1     3     0 - 15
```

Wide (∗ : No need to adjust)

```
WIDE ADJUSTMENT

                    4:3   16:9
∗ V Aspect           47    47    0 - 63
∗ V Scroll           25    25    0 - 63
∗ Upper V Lin        0     0     0 - 15
∗ Lower V Lin        0     0     0 - 15
∗ Left Blanking      11    11    0 - 15
∗ Right Blanking     11    11    0 - 15
```

IC Status

```
IC STATUS (CXA2076 / CXA2040)

CXA2076
     H lock              1
     IKR                 1
     V NG                0
     XRAY                0
     Colour System       7
     CV1 Sync            0
CXA2040
     Sync Sep          1
     S1 Mode Pin       01
     S2 Mode Pin       01
PORT EXPANDER
     Power Good          0
TUNER
     Tuner Status      01111100
```

MSP

```
MSP ADJUSTMENT
SDR    1    CONCCT      0    FAWCTIST   12

   AGC On / Off          ON      ON/OFF
   Constant Gain CDB     0       0 - 20
   FM Prescale FMP       36      0 - 127
   Zwei Mono-St WHI      36      0 - 127
   Zwei St-Mono WLO      18      0 - 127
   Zwei Mono-Bi WMH      36      0 - 127
   Zwei Bi-Mono WLO      18      0 - 127
   Time Zwei WML         41      0 - 127
   FAWCT Limit           10      0 - 127
   FAWCT Soll Init FAW   12      0 - 127
   FAW ER Tol            2       0 - 127
   NICAM Err Max CCT     10      0 - 127
   NICAM Err Min         0       0 - 127
   Time NICAM            26      0 - 127
   Audio Clock ACO       HIZ     ON/HIZ
   SCART Prescale        25      0 - 127
   SCART Volume          64      0 - 127
   NICAM Prescale I      127     0 - 127
   NICAM Prescale L      97      0 - 127
   NICAM Prescale BG     97      0 - 127
   NICAM Prescale DK     97      0 - 127
```

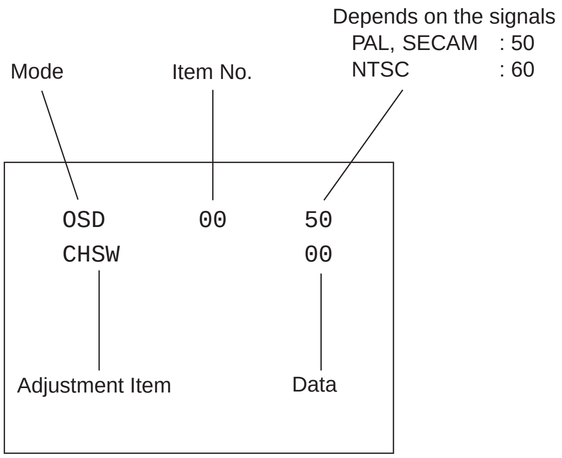
Dynamic Convergence

```
DYNAMIC CONVERGENCE

    Range            0        0 - 42
    H stat           0        OFF - 63
    H amp l          0        OFF - 63
    H amp r          0        OFF - 63
    Up Y             0        OFF - 63
    Low Y            0        OFF - 63
    Y up l           0        OFF - 63
    Y up r           0        OFF - 63
    Y low l          0        OFF - 63
    Y low r          0        OFF - 63
    Mbow up l        0        OFF - 63
    Mbow up r        0        OFF - 63
    Mbow low l       0        OFF - 63
    Mbow low r       0        OFF - 63
    V stat           0        OFF - 63
```

Current TV Status

```
TV STATUS RE-2A(TT09)

    Text System           C Text-2
    Dolby Enabled         No
    DSP Present           No
    Text Language Set     East/Greek
    Menu Language Set     East
    Destination           AEP
    Ageing                Disabled
    Auto Shut Off         Enabled
    Size                  PJ
    Colour Trap Sw        All
    Velocity Mod          On
    AFT Status
    Digital PF            No
    Micro/Jungle          SDA5250/CXA2076
```

Convergence



6-1-3. Service List (Convergence)

(With some models, contents may be different from the following)

Mode	Item Number	Adjustment Item	Data Range	Initial Data		Name / Description	Device
				16 : 9	4 : 3		
OSD	00	CHSW	00, 01	00		HATCH DISPLAY 00 : Internal Pattern (Crosshatch) 01 : External Pattern	
	01	OSH	01 ~ 32	10		OSD H Position	
	02	OSV	01 ~ 32	10		OSD V Position	
	03	VMRK	00, 01	00		V SIZE MARKER ON / OFF (cannot write to NVM)	
SFT	00	SFTE	00, 01	01		SHIFT ENABLE 00 : Disable 01 : Enable	
	01	SFTF	00, 01	00		SHIFT FAST 00 : Normal 01 : Quick (cannot write to NVM)	
GH	00	GSEL	00, 01	00	00	OSD SELECT FOR GH, GV 00 : Green+Red 01 : Green	CXP86213
	01	CENT	–127 ~ +127	12	12	GREEN H CENTER	
	02	SKEW	–127 ~ +127	–03	–03	GREEN H SKEW	
	03	BOW	–127 ~ +127	00	00	GREEN H BOW	
	04	4BOW	–127 ~ +127	00	00	GREEN H 4th BOW	
	05	SIZE	–127 ~ +127	–27	–27	GREEN H SIZE	
	06	LIN	–127 ~ +127	–21	–21	GREEN H LINEARITY	
	07	MSIZ	–127 ~ +127	21	21	GREEN H MID SIZE	
	08	MLIN	–127 ~ +127	–03	–03	GREEN H MID LINEARITY	
	09	KEY	–127 ~ +127	00	00	GREEN H KEYSTONE	
	10	SSKW	–127 ~ +127	–12	–12	GREEN H SUB SKEW	
	11	MPIN	–127 ~ +127	10	10	GREEN H MID PINCUSHION	
	12	PIN	–127 ~ +127	–10	–10	GREEN H PINCUSHION	
	13	SBOW	–127 ~ +127	09	09	GREEN H SUB BOW	
	14	MBOW	–127 ~ +127	00	00	GREEN H MID BOW	
	15	4PIN	–127 ~ +127	09	09	GREEN H 4th PINCUSHION	
	16	4SBO	–127 ~ +127	00	00	GREEN H 4th SUB BOW	

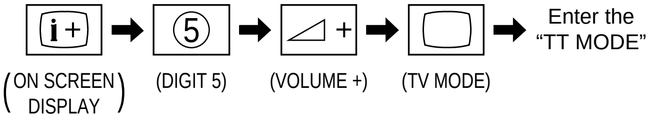
Mode	Item Number	Adjustment Item	Data Range	Initial Data		Name / Description	Device
				16 : 9	4 : 3		
GV	00	CENT	–127 ~ +127	03	03	GREEN V CENTER	CXP86213
	01	SKEW	–127 ~ +127	–17	–17	GREEN V SKEW	
	02	BOW	–127 ~ +127	00	00	GREEN V BOW	
	03	SIZE	–127 ~ +127	–25	–25	GREEN V SIZE	
	04	LIN	–127 ~ +127	–12	–12	GREEN V LINEARITY	
	05	MSIZ	–127 ~ +127	30	30	GREEN V MID SIZE	
	06	MKEY	–127 ~ +127	00	00	GREEN V MID KEYSTONE	
	07	KEY	–127 ~ +127	02	02	GREEN V KEYSTONE	
	08	SSKW	–127 ~ +127	–08	–08	GREEN V SUB SKEW	
	09	MPIN	–127 ~ +127	00	00	GREEN V MID PINCUSHION	
	10	PIN	–127 ~ +127	37	37	GREEN V PINCUSHION	
	11	SBOW	–127 ~ +127	27	27	GREEN V SUB BOW	
	12	WAVW	–127 ~ +127	00	00	GREEN V WAVE	
	13	4PIN	–127 ~ +127	03	03	GREEN V 4th PINCUSHION	
RH	00	CENT	–95 ~ +96	–25	–25	RED H CENTER	
	01	SKEW	–95 ~ +96	–05	–05	RED H SKEW	
	02	BOW	–127 ~ +127	08	08	RED H BOW	
	03	4BOW	–127 ~ +127	00	00	RED H 4th BOW	
	04	SIZE	–127 ~ +127	–25	–25	RED H SIZE	
	05	LIN	–127 ~ +127	–55	–55	RED H LINEARITY	
	06	MSIZ	–127 ~ +127	38	38	RED H MID SIZE	
	07	MLIN	–127 ~ +127	–21	–21	RED H MID LINEARTIY	
	08	KEY	–127 ~ +127	–17	–17	RED H KEYSTONE	
	09	SSKW	–127 ~ +127	–23	–23	RED H SUB SKEW	
	10	MPIN	–127 ~ +127	03	03	RED H MID PINCUSHON	
	11	PIN	–127 ~ +127	–02	–02	RED H PINCUSHON	
	12	SBOW	–127 ~ +127	84	84	RED H SUB BOW	
	13	MBOW	–127 ~ +127	11	11	RED H MID BOW	
	14	4PIN	–127 ~ +127	13	13	RED H 4th PINCUSHON	
	15	4SBO	–127 ~ +127	–03	–03	RED H 4th SUB BOW	
RV	00	CENT	–95 ~ +96	–20	–20	RED V CENTER	
	01	SKEW	–95 ~ +96	–23	–23	RED V SKEW	
	02	BOW	–127 ~ +127	02	02	RED V BOW	
	03	SIZE	–127 ~ +127	13	13	RED V SIZE	
	04	LIN	–127 ~ +127	–03	–03	RED V LINEARITY	
	05	MSIZ	–127 ~ +127	28	28	RED V MID SIZE	
	06	MKEY	–127 ~ +127	12	12	RED V MID KEYSTONE	
	07	KEY	–127 ~ +127	–19	–19	RED V KEYSTONE	
	08	SSKW	–127 ~ +127	02	02	RED V SUB SKEW	
	09	MPIN	–127 ~ +127	–02	–02	RED V MID PINCUSHON	
	10	PIN	–127 ~ +127	16	16	RED V PINCUSHON	
	11	SBOW	–127 ~ +127	25	25	RED V SUB BOW	
	12	WAVW	–127 ~ +127	36	36	RED V WAVE	
	13	4PIN	–127 ~ +127	–02	–02	RED V 4th PINCUSHON	
	14	MWAV	–31 ~ +31	–07	–07	MID WAVE	
BH	00	BSEL	00, 01	00	00	OSD SELECT FOR BH, BV 00 : Blue + Green 01 : Blue + Red	
	01	CENT	–95 ~ +96	10	10	BLUE H CENTER	
	02	SKEW	–95 ~ +96	07	07	BLUE H SKEW	
	03	BOW	–127 ~ +127	–03	–03	BLUE H BOW	
	04	4BOW	–127 ~ +127	00	00	BLUE H 4th BOW	
	05	SIZE	–127 ~ +127	–18	–18	BLUE H SIZE	
	06	LIN	–127 ~ +127	11	11	BLUE H LINEARITY	
	07	MSIZ	–127 ~ +127	42	42	BLUE H MID SIZE	
	08	MLIN	–127 ~ +127	13	13	BLUE H MID LINEARTIY	
	09	KEY	–127 ~ +127	–01	–01	BLUE H KEYSTONE	
	10	SSKW	–127 ~ +127	–09	–09	BLUE H SUB SKEW	
	11	MPIN	–127 ~ +127	–03	–03	BLUE H MID PINCUSHON	
	12	PIN	–127 ~ +127	–06	–06	BLUE H PINCUSHON	
	13	SBOW	–127 ~ +127	–31	–31	BLUE H SUB BOW	
	14	MBOW	–127 ~ +127	–14	–14	BLUE H MID BOW	
	15	4PIN	–127 ~ +127	15	15	BLUE H 4th PINCUSHON	
	16	4SBO	–127 ~ +127	01	01	BLUE H 4th SUB BOW	

Mode	Item Number	Adjustment Item	Data Range	Initial Data		Name / Description	Device
				16 : 9	4 : 3		
BV	00	CENT	–95 ~ +96	–19	–19	BLUE V CENTER	CXP86213
	01	SKEW	–95 ~ +96	08	08	BLUE V SKEW	
	02	BOW	–127 ~ +127	05	05	BLUE V BOW	
	03	SIZE	–127 ~ +127	–08	–08	BLUE V SIZE	
	04	LIN	–127 ~ +127	–02	–02	BLUE V LINEARITY	
	05	MSIZ	–127 ~ +127	28	28	BLUE V MID SIZE	
	06	MKEY	–127 ~ +127	–12	–12	BLUE V MID KEYSTONE	
	07	KEY	–127 ~ +127	05	05	BLUE V KEYSTONE	
	08	SSKW	–127 ~ +127	–22	–22	BLUE V SUB SKEW	
	09	MPIN	–127 ~ +127	–07	–07	BLUE V MID PINCUSHON	
	10	PIN	–127 ~ +127	22	22	BLUE V PINCUSHON	
	11	SBOW	–127 ~ +127	29	29	BLUE V SUB BOW	
	12	WAVW	–127 ~ +127	–31	–31	BLUE V WAVE	
	13	4PIN	–127 ~ +127	–12	–12	BLUE V 4th PINCUSHON	
	14	MWAV	–31 ~ +31	–03	–03	MID WAVE	
ACV	00	ART0	01 ~ 08	06		DATA SAMPLE LENGTH (1 step = 1 µsec.)	
	01	AT1T	00 ~ 255	18		Data Sampling Start Time	
	02	AT1M	00 ~ 255	132		from V BLK (50Hz)	
	03	AT1B	00 ~ 255	240		(1 step = 64 µsec = approx. 1H)	
	04	AH51	01 ~ 255	18		(1 step = 1 OSD step) OSD H POS 50 (L&R)	
	05	AH52	01 ~ 255	130		OSD H POS 50 (UP&BOTTOM)	
	06	AV5T	00 ~ 255	01		(1 step = 2 lines) OSD V POS 50 (UP)	
	07	AV5M	00 ~ 255	60		OSD V POS 50 (L&R)	
	08	AV5B	00 ~ 255	130		OSD V POS 50 (BOTTOM)	
	09	AH61	01 ~ 255	18		(1 step = 1 OSD step) OSD H POS 60 (L&R)	
	10	AH62	01 ~ 255	130		OSD H POS 60 (BOTTOM)	
	11	AV6T	00 ~ 255	01		(1 step = 2 lines) OSD V POS 50 (UP)	
	12	AV6M	00 ~ 255	46		OSD V POS 50 (L&R)	
	13	AV6B	00 ~ 255	100		OSD V POS 50 (BOTTOM)	
	14	RHCO	–127 ~ +127	–48		(8 step = 1 step) RH CENT ADJ OFFSET	
	15	BHCO	–127 ~ +127	15		BH CENT ADJ OFFSET	
	16	RVCO	–127 ~ +127	–04		RV CENT ADJ OFFSET	
	17	BVCO	–127 ~ +127	03		BV CENT ADJ OFFSET	
	18	RHSO	–127 ~ +127	–03		RH SKEW ADJ OFFSET	
	19	BHSO	–127 ~ +127	05		BH SKEW ADJ OFFSET	
	20	RVSO	–127 ~ +127	09		RV SKEW ADJ OFFSET	
	21	BVSO	–127 ~ +127	–07		BV SKEW ADJ OFFSET	
	22	AERR	00 ~ 255	00		(Error Code)	
MSC	00	ACTL	00 ~ 255	10		Lower byte of counter value	
	01	ACTH	00 ~ 255	00		Higher byte of counter value	

6-2. REGISTRATION ADJUSTMENT

6-2-1. Registration Adjustment Method

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.



3. Press “MENU” on the commander.
4. Move to the corresponding adjustment using the joystick (▲ or ▼ : up or down) on the commander.
5. Move the joystick to the right (▶) to enter the selected adjustment.

With the joystick ✥ :

▲ or ▼ Items change
◀ or ▶ Data change

In internal pattern :
ITEM : Convergence

OSD CHSW = “00”	Internal pattern (crosshatch)
OSD CHSW = “01”	External pattern

Color of internal pattern :
ITEM : Convergence

GH GSEL = “00”	Green + Red
GH GSEL = “01”	Green
BH BSEL = “00”	Blue + Green
BH BSEL = “01”	Blue + Red

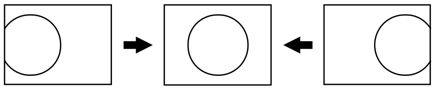
6-2-2. Main Deflection Adjustment

1. Receive the PAL SPCB signal.
2. Select 16 : 9 mode.
   Press “⌖ (blue key)” : 4 : 3 ➡ 16 : 9
   Need geometry adjustment to 16 : 9 mode and 4 : 3 mode. Production spec of each mode.
3. Select service mode and enter adjustment item for green signal.

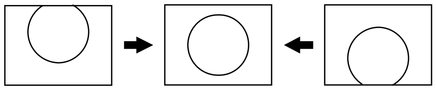
CENTER ADJUSTMENT

1. Adjust H Position and V Position.

H Position



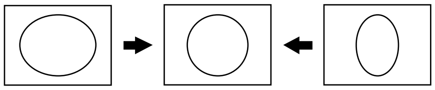
V Position



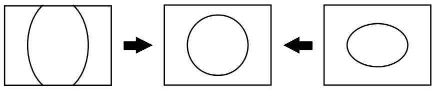
SIZE ADJUSTMENT

1. Make Convergence GH SIZE data “00”.
2. Adjust Geometry H Size.
3. Make Convergence GV SIZE data “00”.
4. Adjust Geometry V Size.
5. Adjust Geometry S Correction.

H Size



V Size



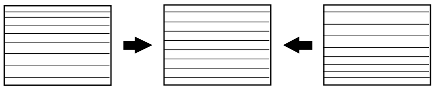
Signal : PAL SPCB

	H SIZE	V SIZE
16 : 9	16.6 ±0.2 sq	12.6 ±0.2 sq
4 : 3	17.1 ±0.2 sq	12.4 ±0.2 sq

MAIN DEFLECTION ADJUSTMENT

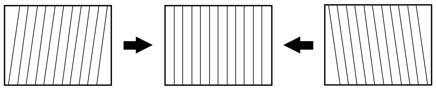
1. Adjust V Linearity.
   Correct linearity of the horizontal top and bottom lines.

V Linearity



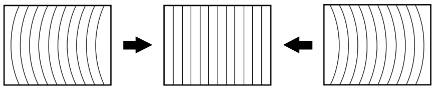
2. Adjust AFC Angle
   Correct the vertical center line to be in parallel with the screen edges and other colors.

AFC Angle



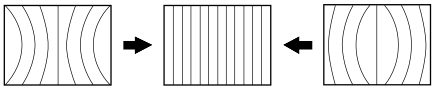
3. Adjust AFC Bow
   Correct linearity of the vertical center line.

AFC Bow



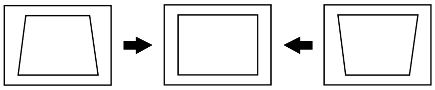
4. Adjust PIN Amp
   Correct the vertical left and right lines and eliminate pincushion-shaped distortion.

PIN Amp



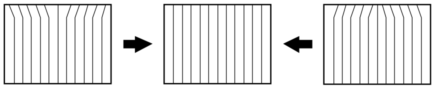
5. Adjust PIN Phase
   Correct the vertical left and right lines to be in parallel with each other.

PIN Phase



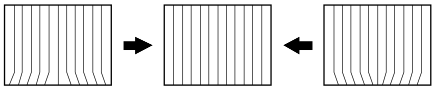
6. Adjust Up Corn Pin
   Correct the screen top section line bow.

Up Corn Pin



7. Adjust Lo Corn Pin
   Correct the screen bottom section line bow.

Lo Corn Pin



6-2-3. Sub Deflection Adjustment

1. Receive the PAL SPCB signal.
2. Select 16 : 9 mode.
   Press "⊕ (blue key)" : 4 : 3 ➡ 16 : 9
   Need geometry adjustment to 16 : 9 mode and 4 : 3 mode.
   Production spec of each mode.
3. Select service mode and enter adjustment item for green signal.

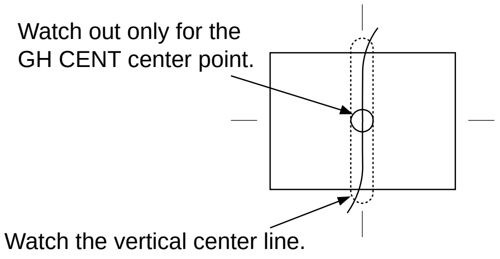
SUB DEFLECTION ADJUSTMENT ITEM

Adjustment ○ : Yes – : No

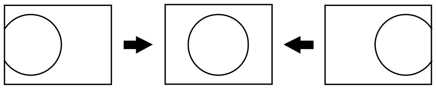
Display	Adjustment item	Adjustment type					
		GH	GV	RH	RV	BH	BV
GSEL	COL SELECT	O	–	–	–	–	–
BSEL	COL SELECT	–	–	–	–	O	–
CENT	CENT	O	O	O	O	O	O
SKEW	SKEW	O	O	O	O	O	O
BOW	BOW	O	O	O	O	O	O
4BOW	4TH BOW	O	–	O	–	O	–
SIZE	SIZE	O	O	O	O	O	O
LIN	LIN	O	O	O	O	O	O
MSIZ	MID SIZE	O	O	O	O	O	O
MLIN	MID LIN	O	–	O	–	O	–
MKEY	MID KEY	–	O	–	O	–	O
KEY	KEY	O	O	O	O	O	O
SSKW	SUB SKEW	O	O	O	O	O	O
MPIN	MID PIN	O	O	O	O	O	O
PIN	PIN	O	O	O	O	O	O
SBOW	SUB BOW	O	O	O	O	O	O
WAVW	WAVE	–	O	–	O	–	O
MBOW	MID BOW	O	–	O	–	O	–
4PIN	4TH PIN	O	O	O	O	O	O
4SBO	4TH SUB BOW	O	–	O	–	O	–
MWAV	MID WAVE	–	–	–	O	–	O

GREEN VERTICAL LINE ADJUSTMENT

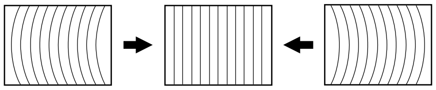
1. Receive the PAL SPCB signal.
2. Carefully watching out for the GH CENT screen center section, adjust GH CENT, GH BOW, GH SKEW.
3. GH 4BOW adjustment. Correct the corner distortion which could not be adjusted with GH BOW.


Watch out only for the GH CENT center point.
Watch the vertical center line.

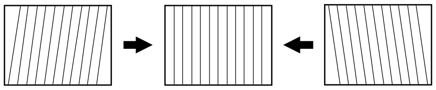
GH CENT



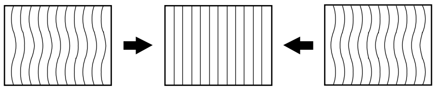
GH BOW



GH SKEW

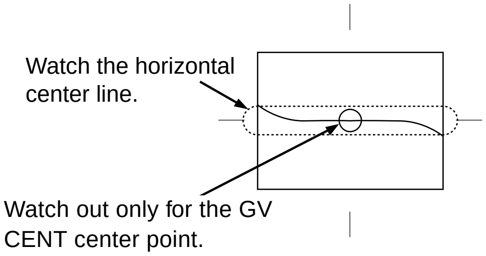


GH 4BOW

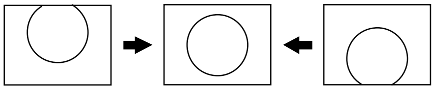


GREEN HORIZONTAL LINE ADJUSTMENT

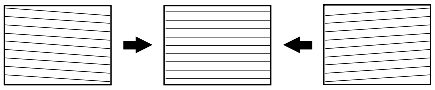
1. Receive the PAL SPCB signal.
2. Finely adjust the center position of the vertical line at the center of the screen with GV CENT.
3. Using GV SKEW and GV BOW, correct the tilt and bow of the horizontal line at the centre of the screen.


Watch the horizontal center line.
Watch out only for the GV CENT center point.

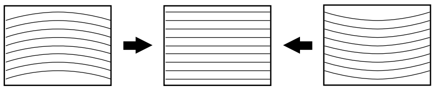
GV CENT



GV SKEW

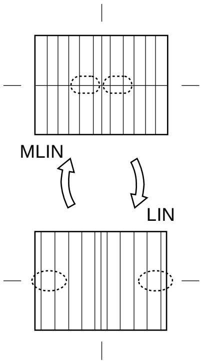


GV BOW



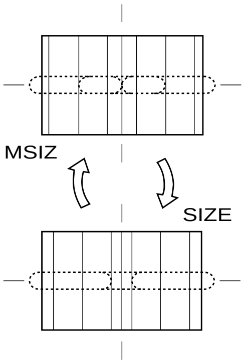
GREEN SIZE AND LINEARITY ADJUSTMENT

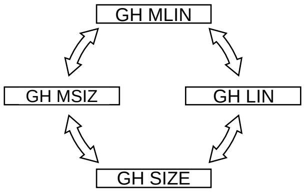
1. Receive the Internal pattern (crosshatch) signal.
2. Balance the sizes at both sides of the center section of the screen with GH MLIN.
3. Balance the sizes on both end sections of the screen with GH LIN.
4. While tracking, adjust with GH MLIN and GH LIN so that the sizes of the horizontal line at the center of the screen are symmetrical left and right.



GREEN HORIZONTAL SIZE ADJUSTMENT

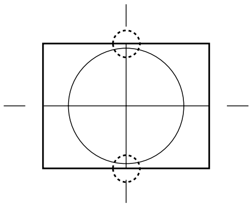
1. Receive the Internal pattern (crosshatch) signal.
2. Adjust with GH MSIZ, so that the sizes of both edges and centre are equal.
3. Adjust with GH SIZE, so that the horizontal sizes of both edges and centre are equal.
4. While tracking adjust GH MSIZ and GH SIZE so that the space intervals for the horizontal section of the screen are equal.
5. Adjust again if M LIN is changed after GH MSIZ and GH SIZE are complete.





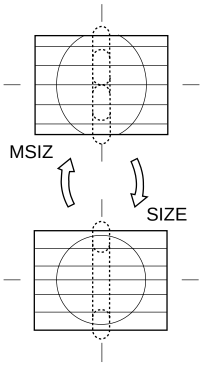
GREEN VERTICAL LINEARITY ADJUSTMENT

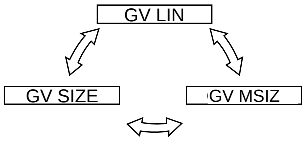
1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GV LIN so that the vertical lines at the top and bottom of the screen are symmetrical.



GREEN VERTICAL SIZE ADJUSTMENT

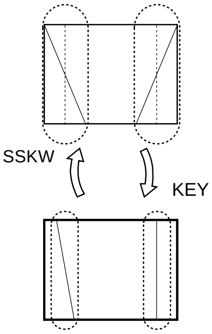
1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GV MSIZ so that the sizes at the top and bottom and centre are equal.
3. Set the vertical size to correct specification.
4. While tracking adjust GV MSIZ and GV SIZE so that the space intervals for the vertical line of the screen are equal, also the vertical size should be within space.
5. Adjust again if GV LIN has been altered after completing the above adjustments.





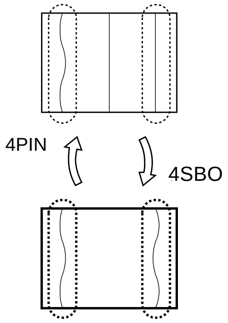
GREEN HORIZONTAL TRAPEZOIDAL DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GH SSKW so that the tilt of the vertical lines at both edges of the screen are symmetrical left and right.
3. Adjust GH KEY so that there is no tilt in the vertical lines at both edges of the screen.
4. While tracking adjust GH KEY and GH SSKW.



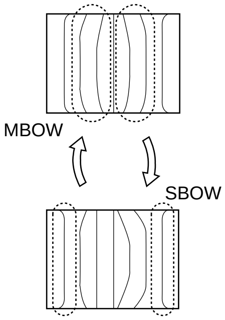
GREEN HORIZONTAL QUATERNARY ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GH 4PIN, to correct the 4th order distortion.
3. Adjust GH 4SBO to balance and correct the 4th order distortion at both edges of the screen.
4. While tracking adjust GH 4PIN and GH 4SBO.



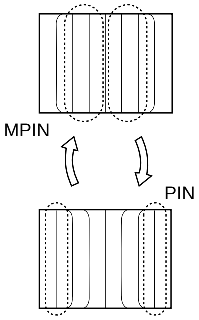
GREEN HORIZONTAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT

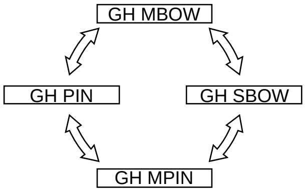
1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GH MBOW, so that the pin asymmetry at both sides of the centre section are symmetrical left and right.
3. Adjust GH SBOW so that the bow at both edges of the screen is symmetrical left and right.
4. While tracking adjust GH MBOW and GH SBOW so that the bow of vertical lines over the entire screen is symmetrical.



GREEN HORIZONTAL SYMMETRICAL PIN DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GH MPIN to correct pin distortion at both edges of the centre section.
3. Use GH PIN to correct pin distortion at both edges of the screen.
4. While tracking adjust GH MPIN and GH PIN so that the PIN of vertical lines on the entire screen have no bowing.
5. If there is asymmetrical distortion after adjustments, readjust GH MBOW and GH SBOW while tracking.

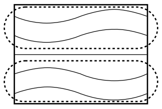




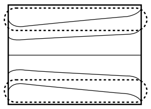
GREEN VERTICAL WAVE (3RD-ORDER) DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Check the screen at the top & bottom, and look for any 2nd or 3rd order waveform distortion of horizontal lines. Correct with GV WAVW.
3. While tracking adjust GV WAVW and GV KEY, if here are any KEY distortion.

GV WAVW



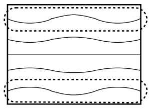
GV KEY



GREEN VERTICAL 4TH ORDER DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. By using GV 4PIN, 4th-Order distortion of the horizontal lines at the top & bottom can be corrected.
   Since there is no 4SBO for vertical correction, there will be a slight imbalance, but adjust the registration to eliminate any distortion.

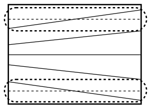
GV 4PIN

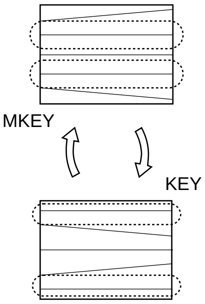


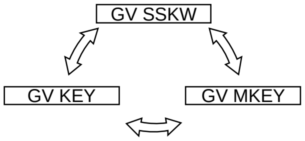
GREEN VERTICAL TRAPEZOIDAL DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Adjust GV SSKW so that the tilt of the horizontal lines at the top and bottom of the screen are symmetrical.
3. Adjust GV MKEY so that there is no tilt for the middle section.
4. Adjust GV KEY so that there is no tilt at the top and bottom of the screen.
5. While tracking adjust GV MKEY and GV KEY, so that there is no tilt over the entire screen.
6. If the tilt is unbalanced after GV MKEY and GV KEY have been adjusted, readjust GV SSKW.

GV SSKW



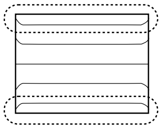




GREEN VERTICAL ASYMMETRICAL PIN DISTORTION (2ND-ORDER DISTORTION) ADJUSTMENT

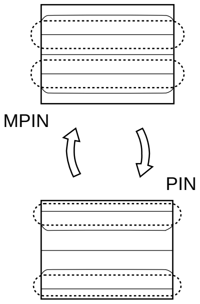
1. Receive the Internal pattern (crosshatch) signal.
2. Correct the asymmetrical pin distortion at the top and bottom of the screen with GV SBOW.

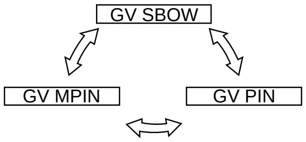
GV SBOW



GREEN VERTICAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
2. Using GV MPIN adjust the pin distortion at both edges of the screen and at the centre.
3. Using GV PIN, adjust, so that the horizontal lines at the top & bottom of the screen are straight lines.
4. Adjust GV MPIN & GV PIN so that there is no curve in the horizontal lines on the entire screen.
5. After adjusting the items above, using tracking with GV SBOW. GV MPIN, and GV PIN to correct the entire screen.





RED REGISTRATION ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
   GH GSEL = “00” (Green + Red)
2. Adjust so that the red lines lay on the green lines.
   Adjust, using the same procedure as the green sub item adjustment outline above.

Note : Main registration correction should not be while adjusting Red adjustment.
BEWARE : Not to change green sub items.
It’ s easily done by mistake.

BLUE ADJUSTMENT

1. Receive the Internal pattern (crosshatch) signal.
   BH BSEL = “00” (Blue + Green)
2. Adjust so that the blue lines lay on the green lines.
   Adjust, using the same procedure as the green sub item adjustment outline above.

Note : Main registration correction should not be while adjusting Blue adjustment.
BEWARE : Not to change green and red sub items.
It’ s easily done by mistake.

REGISTRATION DATA WRITE

1. After finish all PAL registration adjustments, write PAL registration data by pressing form the appropriate buttons.

   DATA WRITE : Press “🔇 (MUTE)” + “⓪”

DATA COPY FROM PAL TO NTSC

1. Copy PAL data to NTSC data by pressing form the appropriate buttons.

   DATA COPY : Press “ⓘ (ON SCREEN DISPLAY)”
   + “⓪”
2. Press “ⓘ” + “⓪” to copy data from PAL to NTSC.
   If you press “ⓘ” ,then it appears “Copy 5060” to display.

∗ Make sure input signal is PAL. If input signal is NTSC and do this process, NTSC data are copied to PAL data !

4 : 3 MODE ADJUSTMENT

1. Receive the PAL SPCB signal.
2. Select 4 : 3 mode.
   Press “⊕ (blue key)” : 16 : 9 ➡ 4 : 3
3. 4 : 3 mode adjustment are the same as 16 : 9 mode.

AUTO CONVERGENCE PRESET

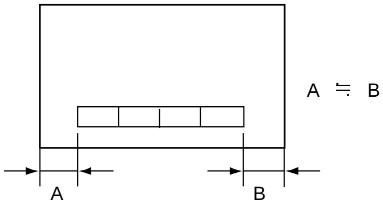
1. Set in the TT mode.
2. Press “ ⊡ (AUTO CONVERGENCE)” button on front panel.
3. Confirm convergence is the same condition as before.
4. Press “⓪” + “⓪” button on commander to exit from the TT mode.
   TT00 : Exit from the TT mode

6-3. HORIZONTAL POSITION ADJUSTMENT

1. Receive the PAL SPCB signal.
2. Select 4 : 3 mode.
   Press “⊕ (blue key)” : 16 : 9 ➡ 4 : 3
3. Set in the service mode and select “Geometry” .
4. Adjust “H position” so that the picture is displayed in the horizontal center of screen.

6-4. TEXT POSITION ADJUSTMENT

1. Receive the RF signal with teletext.
   Signal must have burst. Select full page text.
2. Set in the TT mode.
3. Press “①” + “④” (41PX1/41PX1K) or “⑦” + “④” (41PX1R) button on commander.
   TT14 : TEXT H POSITION adjustment (41PX1/41PX1K)
   TT74 : TEXT H POSITION adjustment (41PX1R)
4. Adjust H position of text.
5. Push “▭ (TV MODE)” to exit.



With the joystick ◇ :

◀ (Move the Left)
▶ (Move the Right)

6-5. WHITE BALANCE ADJUSTMENT

1. Receive the Monoscope signal.
2. Set in the service mode and select “Picture Adjustment”.
3. Adjust “Sub Brightness” so that the signal 10 IRE section barely glows.
4. Receive the All-White pattern signal.
5. Adjust the white balance with “Green Cutoff” and “Blue Cutoff”.
6. Adjust “Sub Brightness” so that the signal 100 IRE section barely glows.
7. Adjust the white balance with “Green Drive” and “Blue Drive”.
8. Repeatedly adjust the white balance for the minimum and maximum picture setting.

6-6. SUB BRIGHTNESS ADJUSTMENT

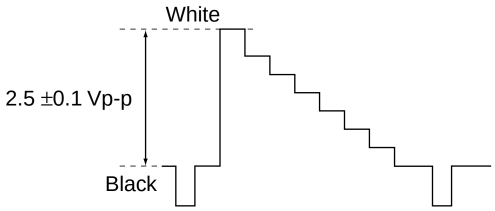
1. Receive the Monoscope signal.
2. Set in the TT mode.
3. Press “①” + “③” (41PX1/41PX1K) or “②” + “③” (41PX1R) button on commander.
   TT13 : SUB BRIGHTNESS adjustment (41PX1/41PX1K)
   TT23 : SUB BRIGHTNESS adjustment (41PX1R)
4. Adjust sub brightness 0 IRE and 10 IRE border just appear point by “◀ ” or “▶” key of commander.

With the joystick ◇ :
◀ (Down)
▶ (Up)

5. Decrease 3 steps from adjusted point.

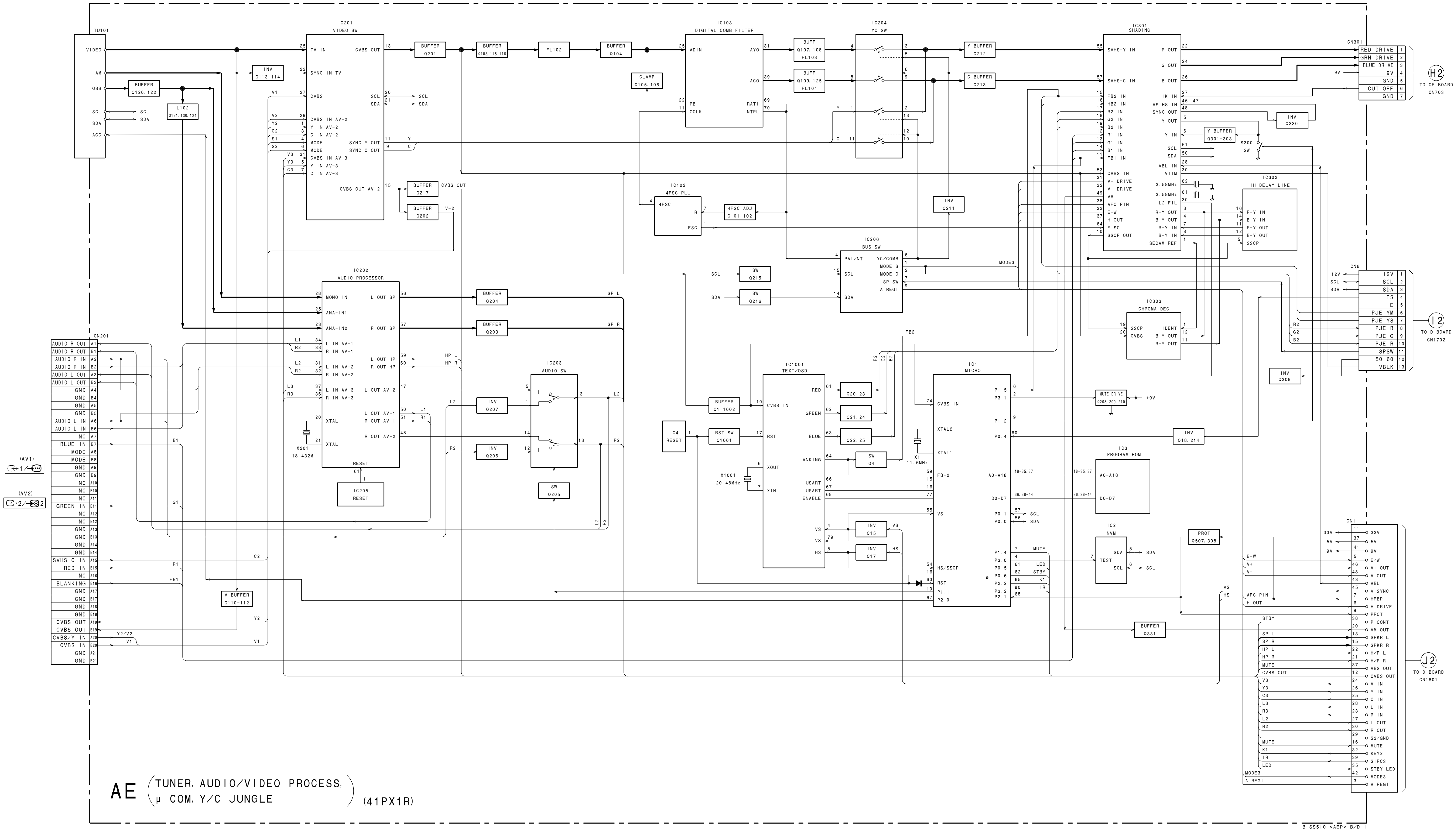
6-7. SUB CONTRAST ADJUSTMENT
(A or AE Board)

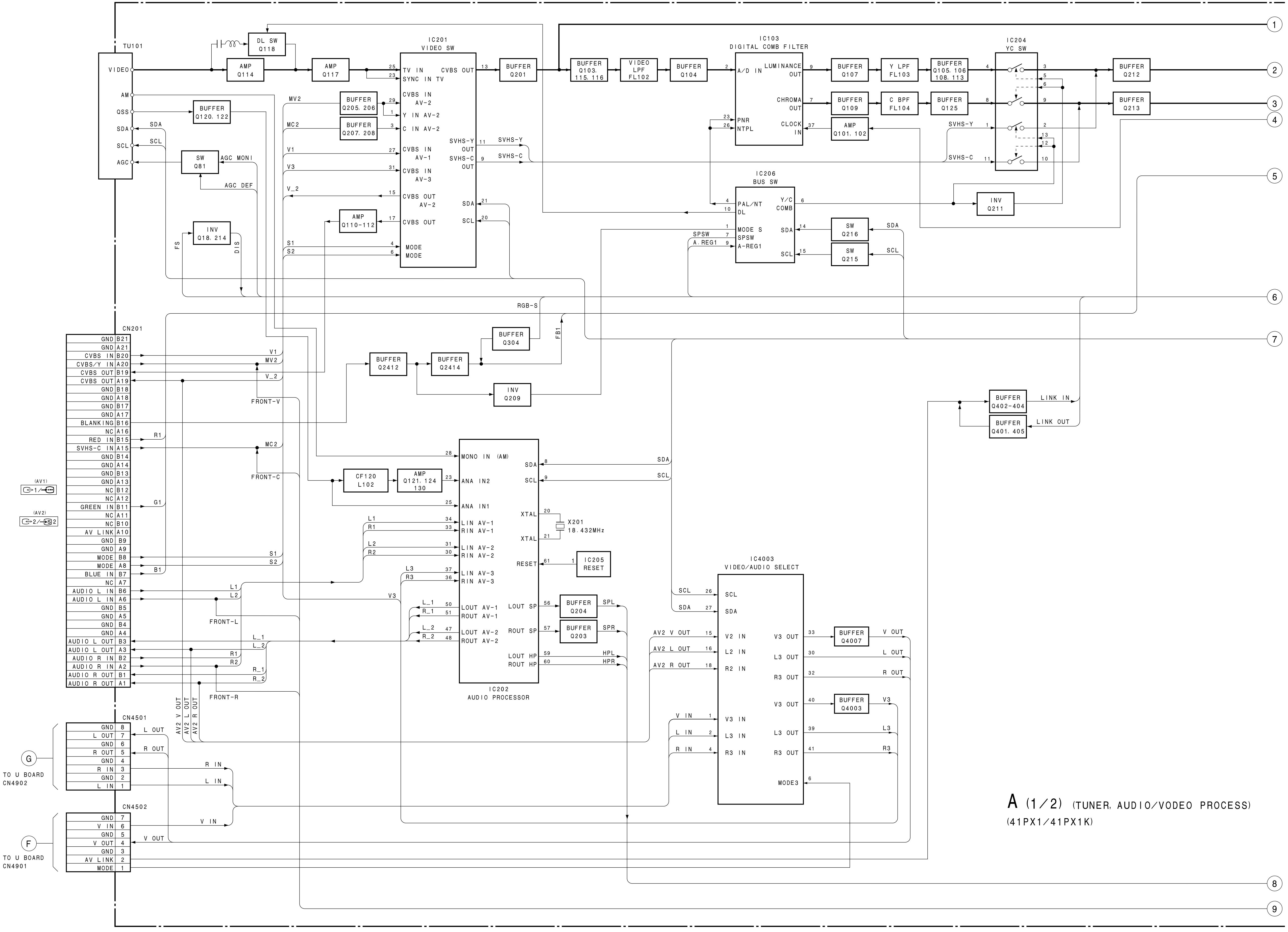
1. Receive the PAL video color bar signal.
   White 100%
   1 Vp-p / 75 Ω terminated.
2. Connect the external power supply to “ABL” and ground.
   A board CN1 (B8) pin (ABL) : 41PX1/41PX1K
   AE board CN1 ㊸ pin (ABL) : 41PX1R
3. Connect the oscilloscope between CN301 ① pin (RED DRIVE) and ground.
4. Set PICTURE to maximum and COLOUR to minimum.
5. Set in the service mode and select “Picture Adjustment”.
6. Supply DC 3.0 V from external power supply to “ABL”.
7. Adjust “Sub Contrast” so that the level between black and white is 2.5 ±0.1 Vp-p .
8. Press “🔇 (MUTE)” + “⓪” button to write the data.



SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAMS


TU101
VIDEO
AM
GSS
SCL
SDA
AGC
BUFFER Q120, 122
L102 Q121, 130, 124
INV Q113, 114
IC201 VIDEO SW
TV IN
SYNC IN TV
CVBS
CVBS OUT
CVBS IN AV-2
Y IN AV-2
C IN AV-2
MODE
CVBS IN AV-3
Y IN AV-3
C IN AV-3
CVBS OUT AV-2
SYNC Y OUT
SYNC C OUT
BUFFER Q201
BUFFER Q103, 115, 116
FL102
BUFFER Q104
BUFFER Q217
BUFFER Q202
CLAMP Q105, 106
IC103 DIGITAL COMB FILTER
ADIN
AYO
ACO
RB
CCLK
RAT1
NTPL
BUFF Q107, 108 FL103
BUFF Q109, 125 FL104
IC204 YC SW
Y BUFFER Q212
C BUFFER Q213
INV Q211
IC102 4FSC PLL
4FSC ADJ Q101, 102
IC206 BUS SW
PAL/NT
YC/COMB
MODE S
MODE O
SP SW
A REGI
SW Q215
SW Q216
IC301 SHADING
SVHS-Y IN
SVHS-C IN
R OUT
G OUT
B OUT
IK IN
VS HS IN
SYNC OUT
Y OUT
Y IN
ABL IN
VTIM
3.58MHz
L2 FIL
R-Y OUT
B-Y OUT
R-Y IN
B-Y IN
SECAM REF
CVBS IN
V- DRIVE
V+ DRIVE
VM
AFC PIN
E-W
H OUT
FISO
SSCP OUT
INV Q330
Y BUFFER Q301-303
S300 SW
IC302 1H DELAY LINE
CN301
RED DRIVE
GRN DRIVE
BLUE DRIVE
9V
GND
CUT OFF
H2
TO CR BOARD CN703
IC303 CHROMA DEC
SSCP
CVBS
IDENT
CN6
12V
SCL
SDA
FS
E
PJE YM
PJE YS
PJE B
PJE G
PJE R
SPSW
50-60
VBLK
I2
TO D BOARD CN1702
INV Q309
IC202 AUDIO PROCESSOR
MONO IN
ANA-IN1
ANA-IN2
L IN AV-1
R IN AV-1
L IN AV-2
R IN AV-2
L IN AV-3
R IN AV-3
XTAL
L OUT SP
R OUT SP
L OUT HP
R OUT HP
L OUT AV-2
L OUT AV-1
R OUT AV-1
R OUT AV-2
RESET
X201 18.432M
BUFFER Q204
BUFFER Q203
IC205 RESET
IC203 AUDIO SW
INV Q207
INV Q206
SW Q205
CN201
AUDIO R OUT
AUDIO R IN
AUDIO L OUT
GND
AUDIO L IN
NC
BLUE IN
MODE
GREEN IN
SVHS-C IN
RED IN
BLANKING
CVBS OUT
CVBS/Y IN
CVBS IN
(AV1)
(AV2)
V-BUFFER Q110-112
IC1001 TEXT/OSD
CVBS IN
RST
XOUT
XIN
RED
GREEN
BLUE
ANKING
USART
ENABLE
VS
HS
X1001 20.48MHz
BUFFER Q1, 1002
RST SW Q1001
IC4 RESET
Q20, 23
Q21, 24
Q22, 25
SW Q4
INV Q15
INV Q17
IC1 MICRO
XTAL2
XTAL1
FB-2
HS/SSCP
X1 11.5MHz
MUTE DRIVE Q208, 209, 210
+9V
INV Q18, 214
IC3 PROGRAM ROM
A0-A18
D0-D7
IC2 NVM
TEST
PROT Q507, 308
BUFFER Q331
MUTE
LED
STBY
CN1
33V
5V
E/W
V+ OUT
V OUT
ABL
V SYNC
HFBP
H DRIVE
PROT
P CONT
VM OUT
SPKR L
SPKR R
H/P L
H/P R
VBS OUT
CVBS OUT
V IN
Y IN
C IN
L IN
R IN
L OUT
R OUT
S3/GND
KEY2
SIRCS
STBY LED
MODE3
A REGI
J2
TO D BOARD CN1801
AE (TUNER, AUDIO/VIDEO PROCESS, μ COM, Y/C JUNGLE) (41PX1R)
B-SS510 <AEP>-B/D-1


TU101
VIDEO
AM
QSS
SDA
SCL
AGC
DL SW Q118
AMP Q114
AMP Q117
BUFFER Q120, 122
SW Q81
AGC MONI
AGC DEF
INV Q18, 214
FS
DIS
IC201 VIDEO SW
TV IN
SYNC IN TV
CVBS OUT
CVBS IN AV-2
Y IN AV-2
C IN AV-2
CVBS IN AV-1
CVBS IN AV-3
CVBS OUT AV-2
SVHS-Y OUT
SVHS-C OUT
SDA
SCL
MODE
BUFFER Q205, 206
BUFFER Q207, 208
AMP Q110-112
MV2
MC2
V1
V3
V_2
S1
S2
BUFFER Q201
BUFFER Q103, 115, 116
VIDEO LPF FL102
BUFFER Q104
IC103 DIGITAL COMB FILTER
A/D IN
LUMINANCE OUT
CHROMA OUT
CLOCK IN
PNR
NTPL
BUFFER Q107
Y LPF FL103
BUFFER Q105, 106, 108, 113
BUFFER Q109
C BPF FL104
BUFFER Q125
AMP Q101, 102
IC204 YC SW
SVHS-Y
SVHS-C
BUFFER Q212
BUFFER Q213
IC206 BUS SW
PAL/NT
DL
MODE S
SPSW
A-REG1
Y/C COMB
INV Q211
SW Q216
SW Q215
RGB-S
FB1
BUFFER Q304
BUFFER Q2412
BUFFER Q2414
INV Q209
BUFFER Q402-404
BUFFER Q401, 405
LINK IN
LINK OUT
CN201
GND B21
GND A21
CVBS IN B20
CVBS/Y IN A20
CVBS OUT B19
CVBS OUT A19
GND B18
GND A18
GND B17
GND A17
BLANKING B16
NC A16
RED IN B15
SVHS-C IN A15
GND B14
GND A14
GND B13
GND A13
NC B12
NC A12
GREEN IN B11
NC A11
NC B10
AV LINK A10
GND B9
GND A9
MODE B8
MODE A8
BLUE IN B7
NC A7
AUDIO L IN B6
AUDIO L IN A6
GND B5
GND A5
GND B4
GND A4
AUDIO L OUT B3
AUDIO L OUT A3
AUDIO R IN B2
AUDIO R IN A2
AUDIO R OUT B1
AUDIO R OUT A1
(AV1)
(AV2)
FRONT-V
FRONT-C
FRONT-L
FRONT-R
R1
G1
B1
L1
L2
R2
L_1
L_2
R_1
R_2
IC202 AUDIO PROCESSOR
MONO IN (AM)
ANA IN2
ANA IN1
LIN AV-1
RIN AV-1
LIN AV-2
RIN AV-2
LIN AV-3
RIN AV-3
LOUT AV-1
ROUT AV-1
LOUT AV-2
ROUT AV-2
XTAL
RESET
LOUT SP
ROUT SP
LOUT HP
ROUT HP
CF120 L102
AMP Q121, 124, 130
X201 18.432MHz
IC205 RESET
BUFFER Q204
BUFFER Q203
SPL
SPR
HPL
HPR
IC4003 VIDEO/AUDIO SELECT
SCL
SDA
V2 IN
L2 IN
R2 IN
V3 IN
L3 IN
R3 IN
V3 OUT
L3 OUT
R3 OUT
MODE3
AV2 V OUT
AV2 L OUT
AV2 R OUT
BUFFER Q4007
BUFFER Q4003
V OUT
L OUT
R OUT
V IN
L IN
R IN
CN4501
GND 8
L OUT 7
GND 6
R OUT 5
GND 4
R IN 3
GND 2
L IN 1
TO U BOARD CN4902
CN4502
GND 7
V IN 6
GND 5
V OUT 4
GND 3
AV LINK 2
MODE 1
TO U BOARD CN4901
G
F
①
②
③
④
⑤
⑥
⑦
⑧
⑨

A (1/2) (TUNER, AUDIO/VODEO PROCESS)
(41PX1/41PX1K)

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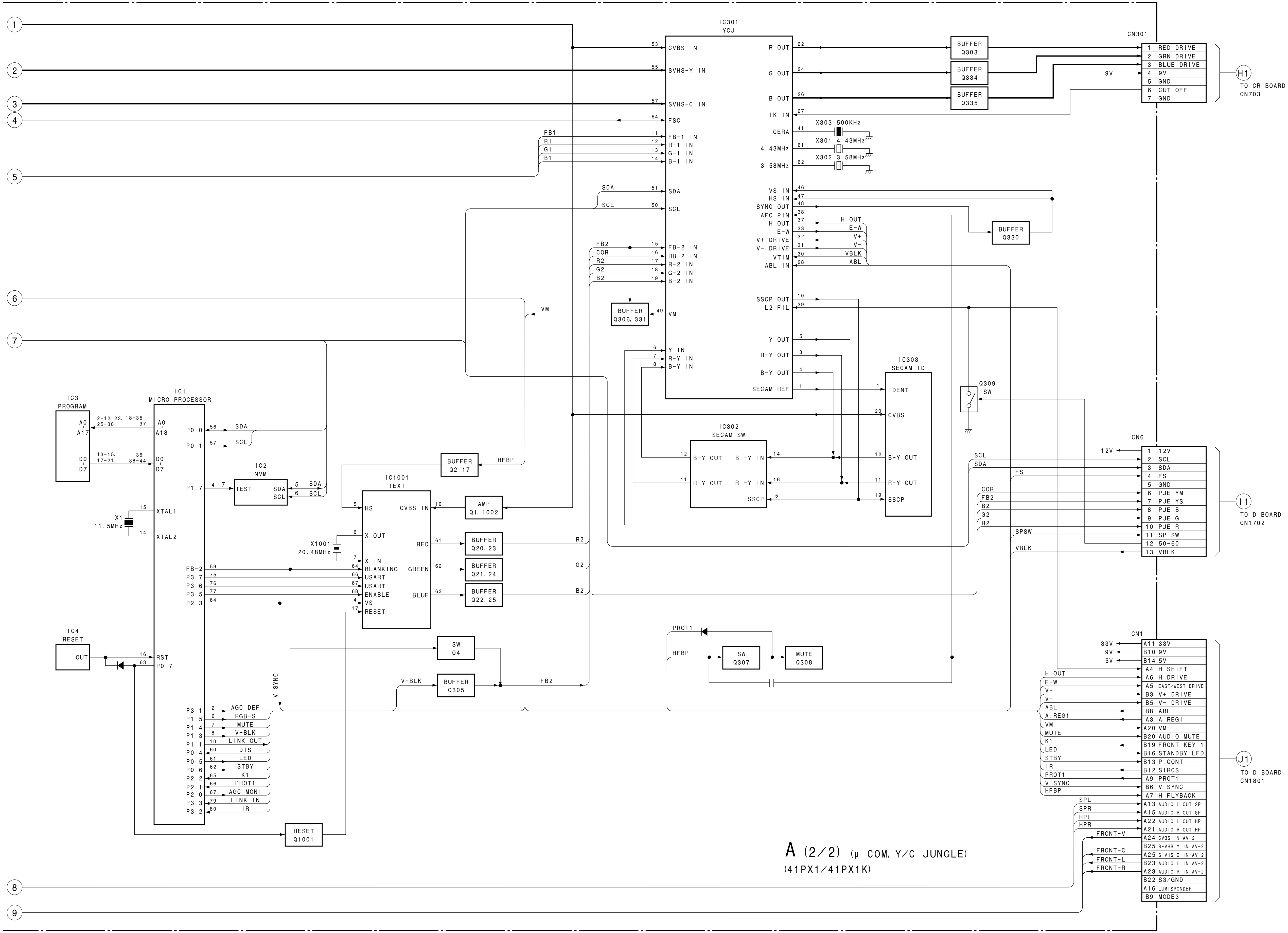
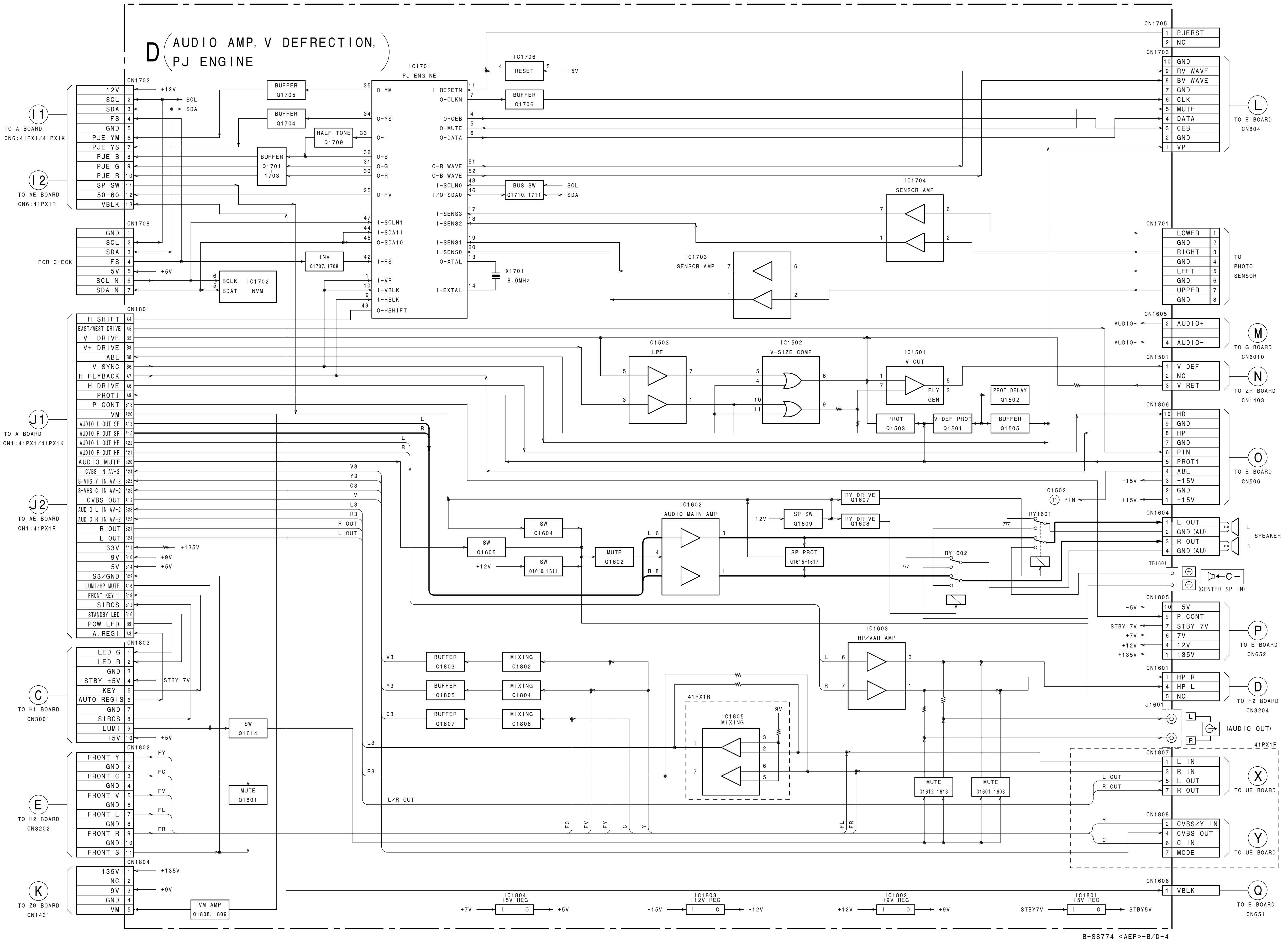

IC301 YCJ
CVBS IN
SVHS-Y IN
SVHS-C IN
FSC
FB-1 IN
R-1 IN
G-1 IN
B-1 IN
SDA
SCL
FB-2 IN
HB-2 IN
R-2 IN
G-2 IN
B-2 IN
VM
Y IN
R-Y IN
B-Y IN
R OUT
G OUT
B OUT
IK IN
CERA
4.43MHz
3.58MHz
VS IN
HS IN
SYNC OUT
AFC PIN
H OUT
E-W
V+ DRIVE
V- DRIVE
VTIM
ABL IN
SSCP OUT
L2 FIL
Y OUT
R-Y OUT
B-Y OUT
SECAM REF
X303 500KHz
X301 4.43MHz
X302 3.58MHz
BUFFER Q303
BUFFER Q334
BUFFER Q335
BUFFER Q330
BUFFER Q306, 331
CN301
1 RED DRIVE
2 GRN DRIVE
3 BLUE DRIVE
4 9V
5 GND
6 CUT OFF
7 GND
H1 TO CR BOARD CN703
IC303 SECAM ID
IDENT
CVBS
B-Y OUT
R-Y OUT
SSCP
IC302 SECAM SW
B-Y OUT
B -Y IN
R-Y OUT
R -Y IN
SSCP
Q309 SW
CN6
1 12V
2 SCL
3 SDA
4 FS
5 GND
6 PJE YM
7 PJE YS
8 PJE B
9 PJE G
10 PJE R
11 SP SW
12 50-60
13 VBLK
I1 TO D BOARD CN1702
IC3 PROGRAM
A0 A17 D0 D7
IC1 MICRO PROCESSOR
A0 A18 D0 D7
XTAL1 XTAL2
X1 11.5MHz
P0.0 P0.1 P1.7
FB-2 P3.7 P3.6 P3.5 P2.3
RST P0.7
P3.1 P1.5 P1.4 P1.3 P1.1 P0.4 P0.5 P0.6 P2.2 P2.1 P2.0 P3.3 P3.2
AGC DEF
RGB-S
MUTE
V-BLK
LINK OUT
DIS
LED
STBY
K1
PROT1
AGC MONI
LINK IN
IR
IC2 NVM
TEST SDA SCL
IC4 RESET
OUT
RESET Q1001
IC1001 TEXT
HS
CVBS IN
X OUT
X IN
BLANKING
USART
USART
ENABLE
VS
RESET
RED
GREEN
BLUE
X1001 20.48MHz
BUFFER Q2.17
HFBP
AMP Q1.1002
BUFFER Q20.23
BUFFER Q21.24
BUFFER Q22.25
R2 G2 B2
SW Q4
BUFFER Q305
V-BLK
FB2
V SYNC
PROT1
HFBP
SW Q307
MUTE Q308
CN1
A11 33V
B10 9V
B14 5V
A4 H SHIFT
A6 H DRIVE
A5 EAST/WEST DRIVE
B3 V+ DRIVE
B5 V- DRIVE
B8 ABL
A3 A REGI
A20 VM
B20 AUDIO MUTE
B19 FRONT KEY 1
B16 STANDBY LED
B13 P.CONT
B12 SIRCS
A9 PROT1
B6 V SYNC
A7 H FLYBACK
A13 AUDIO L OUT SP
A15 AUDIO R OUT SP
A22 AUDIO L OUT HP
A21 AUDIO R OUT HP
A24 CVBS IN AV-2
B25 S-VHS Y IN AV-2
A25 S-VHS C IN AV-2
B23 AUDIO L IN AV-2
A23 AUDIO R IN AV-2
B22 S3/GND
A16 LUMISPONDER
B9 MODE3
J1 TO D BOARD CN1801
SPL SPR HPL HPR
FRONT-V FRONT-C FRONT-L FRONT-R
1 2 3 4 5 6 7 8 9

A (2/2) (μ COM, Y/C JUNGLE)
(41PX1/41PX1K)


D (AUDIO AMP, V DEFRECTION, PJ ENGINE)
I1 TO A BOARD CN6:41PX1/41PX1K
I2 TO AE BOARD CN6:41PX1R
CN1702
12V SCL SDA FS GND PJE YM PJE YS PJE B PJE G PJE R SP SW 50-60 VBLK
+12V SCL SDA
CN1708 FOR CHECK
GND SCL SDA FS 5V SCL N SDA N
+5V
IC1702 NVM BCLK BDAT
BUFFER Q1705
BUFFER Q1704
HALF TONE Q1709
BUFFER Q1701 | 1703
INV Q1707, 1708
IC1701 PJ ENGINE
O-YM O-YS O-I O-B O-G O-R O-FV I-SCLN1 I-SDA11 O-SDA10 I-FS I-VP I-VBLK I-HBLK O-HSHIFT
I-RESETN O-CLKN O-CEB O-MUTE O-DATA O-R WAVE O-B WAVE I-SCLN0 I/O-SDA0 I-SENS3 I-SENS2 I-SENS1 I-SENS0 O-XTAL I-EXTAL
X1701 8.0MHz
IC1706 RESET +5V
BUFFER Q1706
BUS SW Q1710, 1711 SCL SDA
IC1704 SENSOR AMP
IC1703 SENSOR AMP
CN1705 PJERST NC
CN1703 GND RV WAVE BV WAVE GND CLK MUTE DATA CEB GND VP
L TO E BOARD CN804
CN1701 LOWER GND RIGHT GND LEFT GND UPPER GND
TO PHOTO SENSOR
CN1801
H SHIFT EAST/WEST DRIVE V- DRIVE V+ DRIVE ABL V SYNC H FLYBACK H DRIVE PROT1 P CONT VM AUDIO L OUT SP AUDIO R OUT SP AUDIO L OUT HP AUDIO R OUT HP AUDIO MUTE CVBS IN AV-2 S-VHS Y IN AV-2 S-VHS C IN AV-2 CVBS OUT AUDIO L IN AV-2 AUDIO R IN AV-2 R OUT L OUT 33V 9V 5V S3/GND LUMI/HP MUTE FRONT KEY 1 SIRCS STANDBY LED POW LED A.REGI
J1 TO A BOARD CN1:41PX1/41PX1K
J2 TO AE BOARD CN1:41PX1R
+135V +9V +5V
IC1503 LPF
IC1502 V-SIZE COMP
IC1501 V OUT FLY GEN
PROT DELAY Q1502
PROT Q1503
V-DEF PROT Q1501
BUFFER Q1505
CN1605 AUDIO+ AUDIO-
M TO G BOARD CN6010
CN1501 V DEF NC V RET
N TO ZR BOARD CN1403
CN1806 HD GND HP GND PIN PROT1 ABL -15V GND +15V
O TO E BOARD CN506
IC1502 (11) PIN
-15V +15V
IC1602 AUDIO MAIN AMP
SW Q1604
SW Q1605
SW Q1610, 1611
MUTE Q1602
SP SW Q1609
RY DRIVE Q1607
RY DRIVE Q1608
SP PROT Q1615-1617
RY1601 RY1602
CN1604 L OUT GND (AU) R OUT GND (AU)
L R SPEAKER
TB1601 (CENTER SP IN)
CN1805 -5V P.CONT STBY 7V 7V 12V 135V
P TO E BOARD CN652
IC1603 HP/VAR AMP
CN1601 HP R HP L NC
D TO H2 BOARD CN3204
J1601 (AUDIO OUT)
41PX1R
CN1807 L IN R IN L OUT R OUT
X TO UE BOARD
CN1808 CVBS/Y IN CVBS OUT C IN MODE
Y TO UE BOARD
CN1606 VBLK
Q TO E BOARD CN651
CN1803 LED G LED R GND STBY +5V KEY AUTO REGIS GND SIRCS LUMI +5V
C TO H1 BOARD CN3001
STBY 7V
SW Q1614
CN1802 FRONT Y GND FRONT C GND FRONT V GND FRONT L GND FRONT R GND FRONT S
E TO H2 BOARD CN3202
MUTE Q1801
CN1804 135V NC 9V GND VM
K TO ZG BOARD CN1431
VM AMP Q1808, 1809
BUFFER Q1803 BUFFER Q1805 BUFFER Q1807
MIXING Q1802 MIXING Q1804 MIXING Q1806
V3 Y3 C3 L3 R3 L/R OUT
IC1805 MIXING 9V
MUTE Q1612, 1613
MUTE Q1601, 1603
IC1804 +5V REG +7V +5V
IC1803 +12V REG +15V +12V
IC1802 +9V REG +12V +9V
IC1801 +5V REG STBY7V STBY5V
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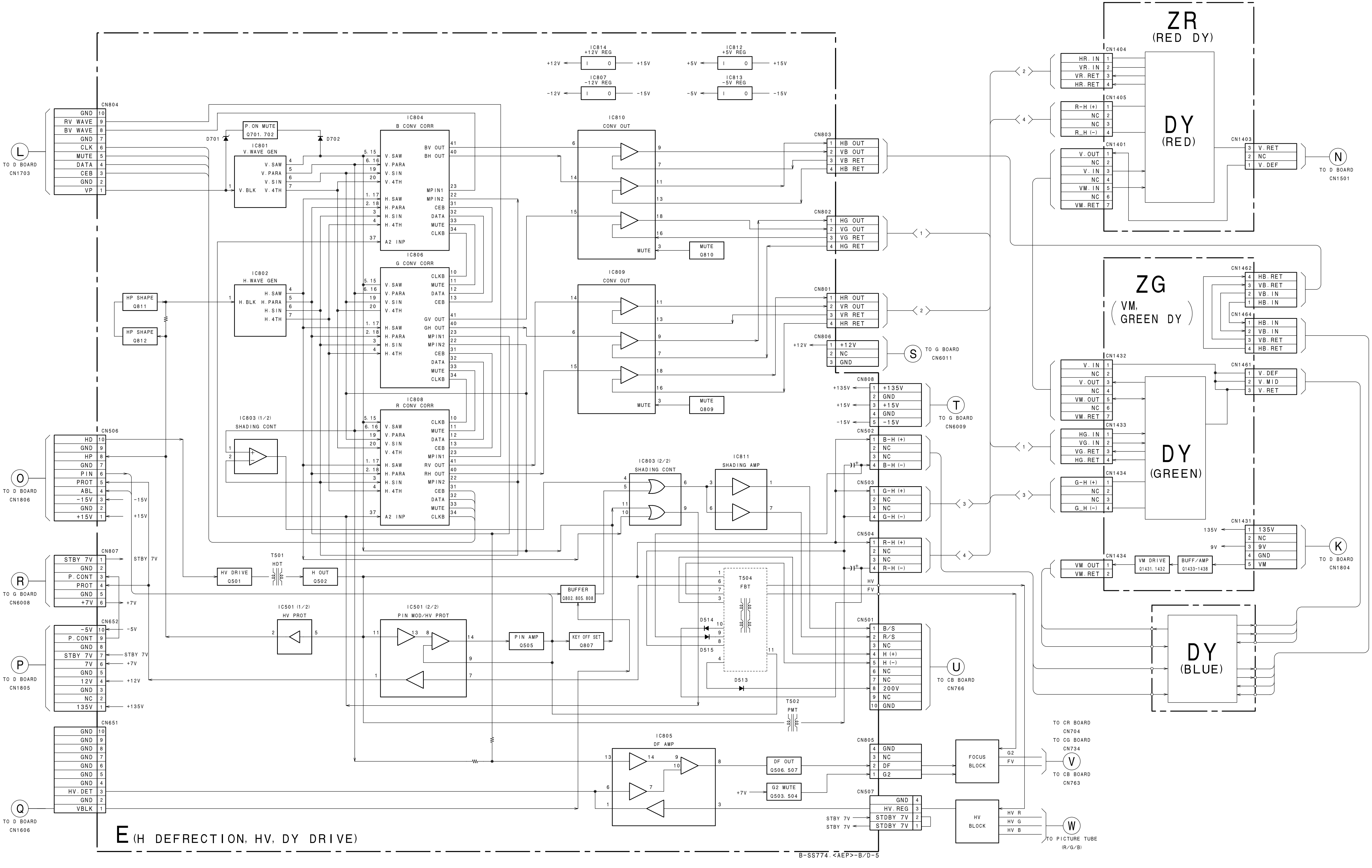
E (H DEFRECTION, HV, DY DRIVE)
ZR (RED DY)
DY (RED)
ZG (VM, GREEN DY)
DY (GREEN)
DY (BLUE)
CN804
GND 10
RV WAVE 9
BV WAVE 8
GND 7
CLK 6
MUTE 5
DATA 4
CEB 3
GND 2
VP 1
L TO D BOARD CN1703
CN506
HD 10
GND 9
HP 8
GND 7
PIN 6
PROT 5
ABL 4
-15V 3
GND 2
+15V 1
O TO D BOARD CN1806
CN807
STBY 7V 1
GND 2
P.CONT 3
PROT 4
GND 5
+7V 6
R TO G BOARD CN6008
CN652
-5V 10
P.CONT 9
GND 8
STBY 7V 7
7V 6
GND 5
12V 4
GND 3
NC 2
135V 1
P TO D BOARD CN1805
CN651
GND 10
GND 9
GND 8
GND 7
GND 6
GND 5
GND 4
HV.DET 3
GND 2
VBLK 1
Q TO D BOARD CN1606
IC814 +12V REG
IC812 +5V REG
IC807 -12V REG
IC813 -5V REG
+12V
+15V
+5V
-12V
-15V
-5V
P.ON MUTE Q701,702
D701
D702
IC801 V.WAVE GEN
V.SAW
V.PARA
V.SIN
V.BLK
V.4TH
IC804 B CONV CORR
IC806 G CONV CORR
IC808 R CONV CORR
H.SAW
H.PARA
H.SIN
H.4TH
A2 INP
BV OUT
BH OUT
GV OUT
GH OUT
RV OUT
RH OUT
MPIN1
MPIN2
CEB
DATA
MUTE
CLKB
IC802 H.WAVE GEN
H.BLK
HP SHAPE Q811
HP SHAPE Q812
IC803 (1/2) SHADING CONT
IC803 (2/2) SHADING CONT
IC811 SHADING AMP
IC810 CONV OUT
IC809 CONV OUT
MUTE
MUTE Q810
MUTE Q809
CN803
HB OUT
VB OUT
VB RET
HB RET
CN802
HG OUT
VG OUT
VG RET
HG RET
CN801
HR OUT
VR OUT
VR RET
HR RET
CN806
+12V
NC
GND
S TO G BOARD CN6011
CN808
+135V
GND
+15V
GND
-15V
T TO G BOARD CN6009
CN502
B-H (+)
NC
NC
B-H (-)
CN503
G-H (+)
NC
NC
G-H (-)
CN504
R-H (+)
NC
NC
R-H (-)
HV
FV
T501 HDT
HV DRIVE Q501
H OUT Q502
BUFFER Q802,805,808
T504 FBT
D514
D515
D513
T502 PMT
IC501 (1/2) HV PROT
IC501 (2/2) PIN MOD/HV PROT
PIN AMP Q505
KEY OFF SET Q807
CN501
B/S
R/S
NC
H (+)
H (-)
NC
NC
200V
NC
GND
U TO CB BOARD CN766
IC805 DF AMP
DF OUT Q506,507
G2 MUTE Q503,504
+7V
CN805
GND
NC
DF
G2
CN507
GND
HV.REG
STDBY 7V
STDBY 7V
STBY 7V
FOCUS BLOCK
G2
FV
V TO CR BOARD CN704 TO CG BOARD CN734 TO CB BOARD CN763
HV BLOCK
HV R
HV G
HV B
W TO PICTURE TUBE (R/G/B)
CN1404
HR.IN
VR.IN
VR.RET
HR.RET
CN1405
R-H (+)
NC
NC
R_H (-)
CN1401
V.OUT
NC
V.IN
NC
VM.IN
NC
VM.RET
CN1403
V.RET
NC
V.DEF
N TO D BOARD CN1501
CN1462
HB.RET
VB.RET
VB.IN
HB.IN
CN1464
HB.IN
VB.IN
VB.RET
HB.RET
CN1432
V.IN
NC
V.OUT
NC
VM.OUT
NC
VM.RET
CN1461
V.DEF
V.MID
V.RET
CN1433
HG.IN
VG.IN
VG.RET
HG.RET
CN1434
G-H (+)
NC
NC
G_H (-)
CN1431
135V
NC
9V
GND
VM
K TO D BOARD CN1804
CN1434
VM OUT
VM.RET
VM DRIVE Q1431,1432
BUFF/AMP Q1433-1438
1
2
3
4
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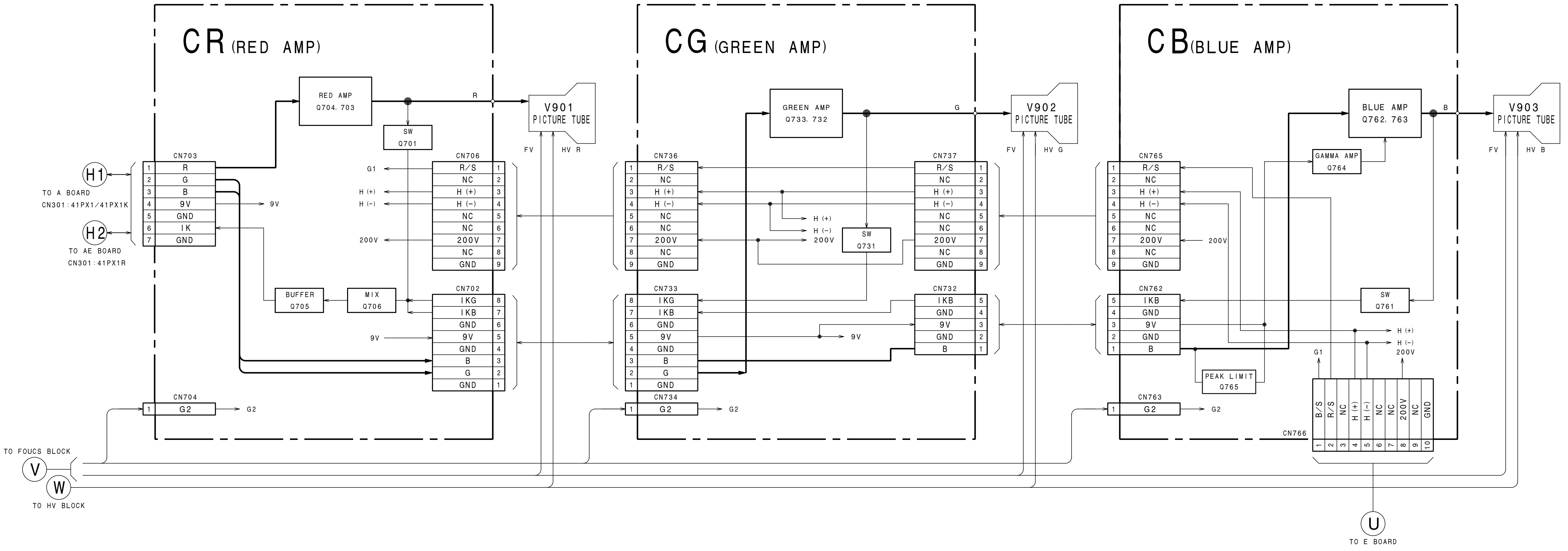
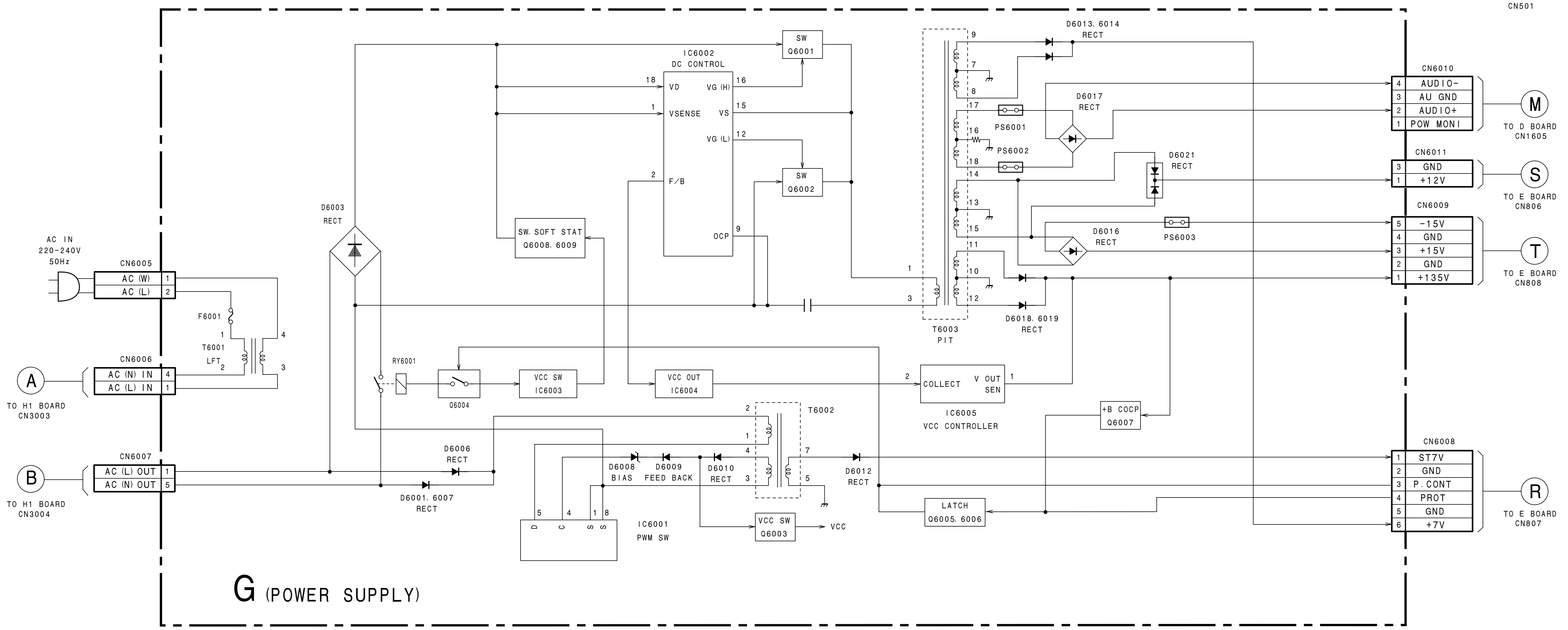

CR (RED AMP)
CG (GREEN AMP)
CB (BLUE AMP)
RED AMP Q704, 703
SW Q701
R
V901 PICTURE TUBE
FV
HV R
CN703
R
G
B
9V
GND
IK
GND
H1
TO A BOARD CN301 : 41PX1/41PX1K
H2
TO AE BOARD CN301 : 41PX1R
CN706
R/S
NC
H (+)
H (–)
NC
NC
200V
NC
GND
G1
H (+)
H (–)
200V
9V
CN702
IKG
IKB
GND
9V
GND
B
G
GND
BUFFER Q705
MIX Q706
CN704
G2
G2
GREEN AMP Q733, 732
G
V902 PICTURE TUBE
HV G
CN736
CN737
SW Q731
H (+)
H (–)
200V
CN733
CN732
IKB
CN734
9V
BLUE AMP Q762, 763
GAMMA AMP Q764
V903 PICTURE TUBE
HV B
CN765
CN762
SW Q761
PEAK LIMIT Q765
CN763
CN766
B/S
R/S
NC
H (+)
H (–)
NC
NC
200V
NC
GND
TO FOUCS BLOCK
V
W
TO HV BLOCK
U
TO E BOARD CN501


G (POWER SUPPLY)
AC IN 220-240V 50Hz
CN6005
AC (W)
AC (L)
F6001
T6001 LFT
CN6006
AC (N) IN
AC (L) IN
A
TO H1 BOARD CN3003
CN6007
AC (L) OUT
AC (N) OUT
B
TO H1 BOARD CN3004
D6003 RECT
RY6001
Q6004
VCC SW IC6003
VCC OUT IC6004
SW. SOFT STAT Q6008, 6009
IC6002 DC CONTROL
VD
VSENSE
F/B
VG (H)
VS
VG (L)
OCP
SW Q6001
SW Q6002
D6006 RECT
D6001, 6007 RECT
D6008 BIAS
D6009 FEED BACK
D6010 RECT
IC6001 PWM SW
T6002
D6012 RECT
VCC SW Q6003
VCC
COLLECT
V OUT SEN
IC6005 VCC CONTROLLER
+B COCP Q6007
LATCH Q6005, 6006
T6003 PIT
D6013, 6014 RECT
D6017 RECT
PS6001
PS6002
D6021 RECT
D6016 RECT
PS6003
D6018, 6019 RECT
CN6010
AUDIO–
AU GND
AUDIO+
POW MONI
M
TO D BOARD CN1605
CN6011
GND
+12V
S
TO E BOARD CN806
CN6009
–15V
GND
+15V
GND
+135V
T
TO E BOARD CN808
CN6008
ST7V
GND
P. CONT
PROT
GND
+7V
R
TO E BOARD CN807

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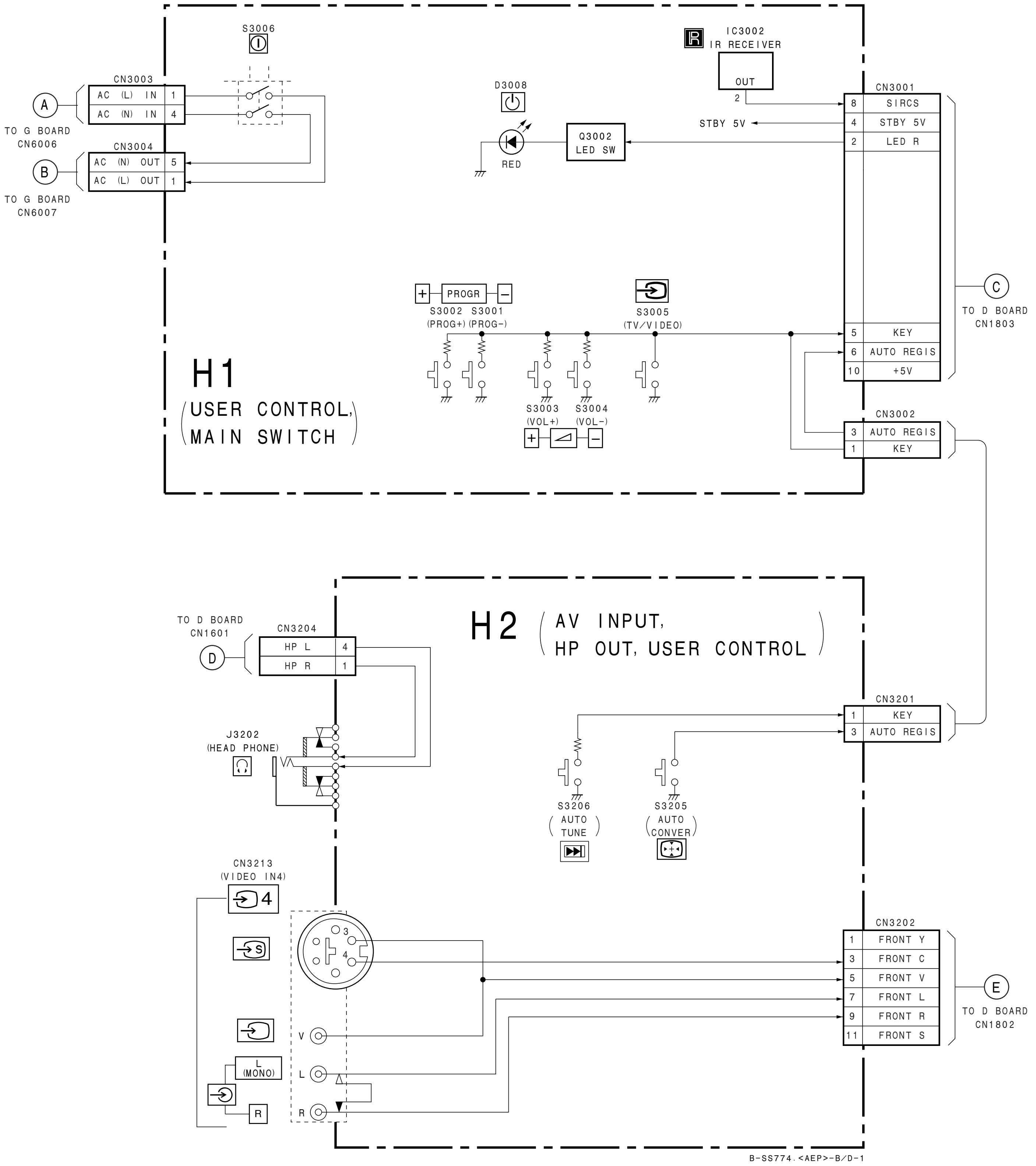
H1
(USER CONTROL, MAIN SWITCH)
S3006
IC3002
IR RECEIVER
OUT
CN3003
AC (L) IN 1
AC (N) IN 4
CN3004
AC (N) OUT 5
AC (L) OUT 1
A
TO G BOARD CN6006
B
TO G BOARD CN6007
D3008
RED
Q3002
LED SW
STBY 5V
CN3001
8 SIRCS
4 STBY 5V
2 LED R
5 KEY
6 AUTO REGIS
10 +5V
C
TO D BOARD CN1803
PROGR
S3002 S3001
(PROG+) (PROG−)
S3005
(TV/VIDEO)
S3003 S3004
(VOL+) (VOL−)
CN3002
3 AUTO REGIS
1 KEY
H2 (AV INPUT, HP OUT, USER CONTROL)
TO D BOARD CN1601
D
CN3204
HP L 4
HP R 1
J3202
(HEAD PHONE)
CN3201
1 KEY
3 AUTO REGIS
S3206
(AUTO TUNE)
S3205
(AUTO CONVER)
CN3213
(VIDEO IN4)
4
S
V
L
(MONO)
R
CN3202
1 FRONT Y
3 FRONT C
5 FRONT V
7 FRONT L
9 FRONT R
11 FRONT S
E
TO D BOARD CN1802
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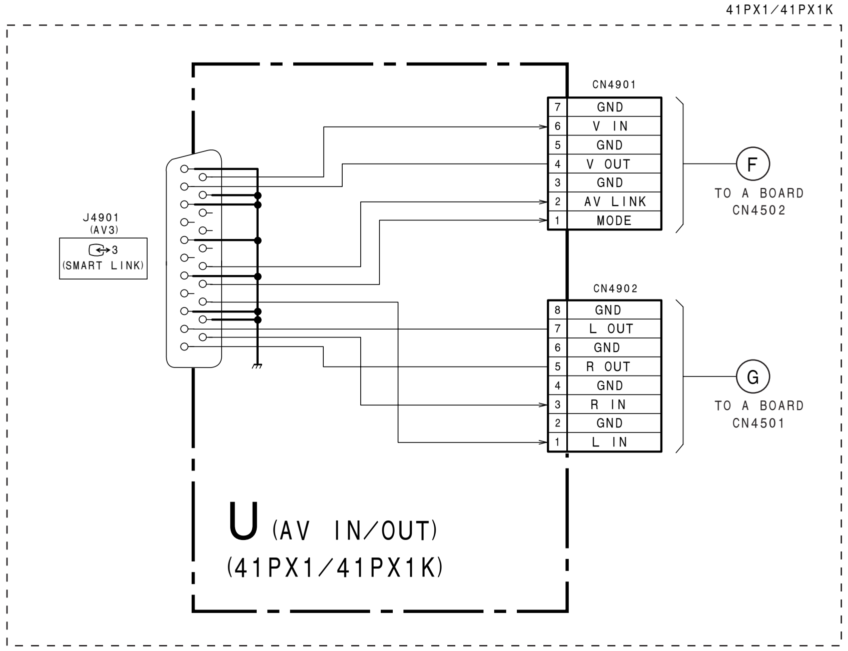
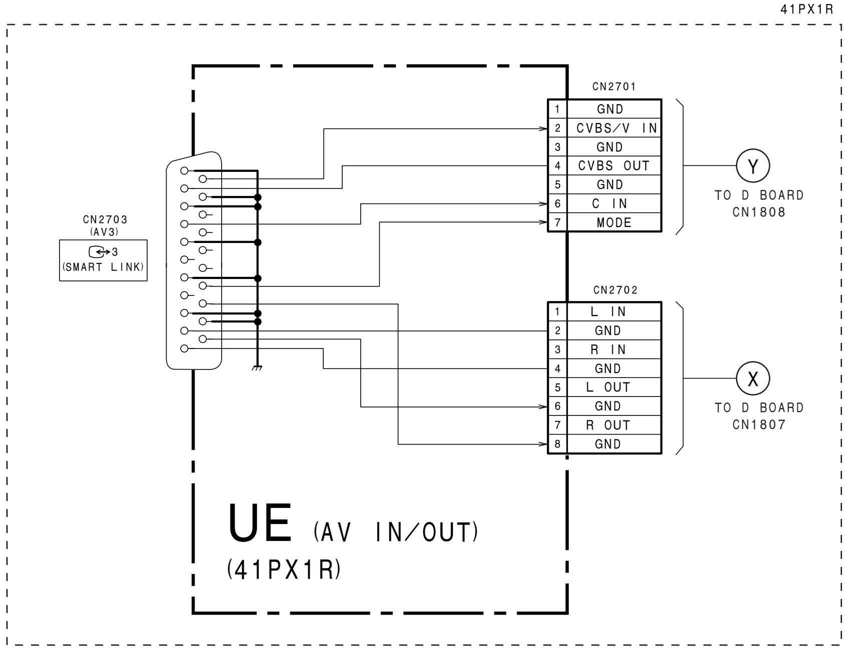
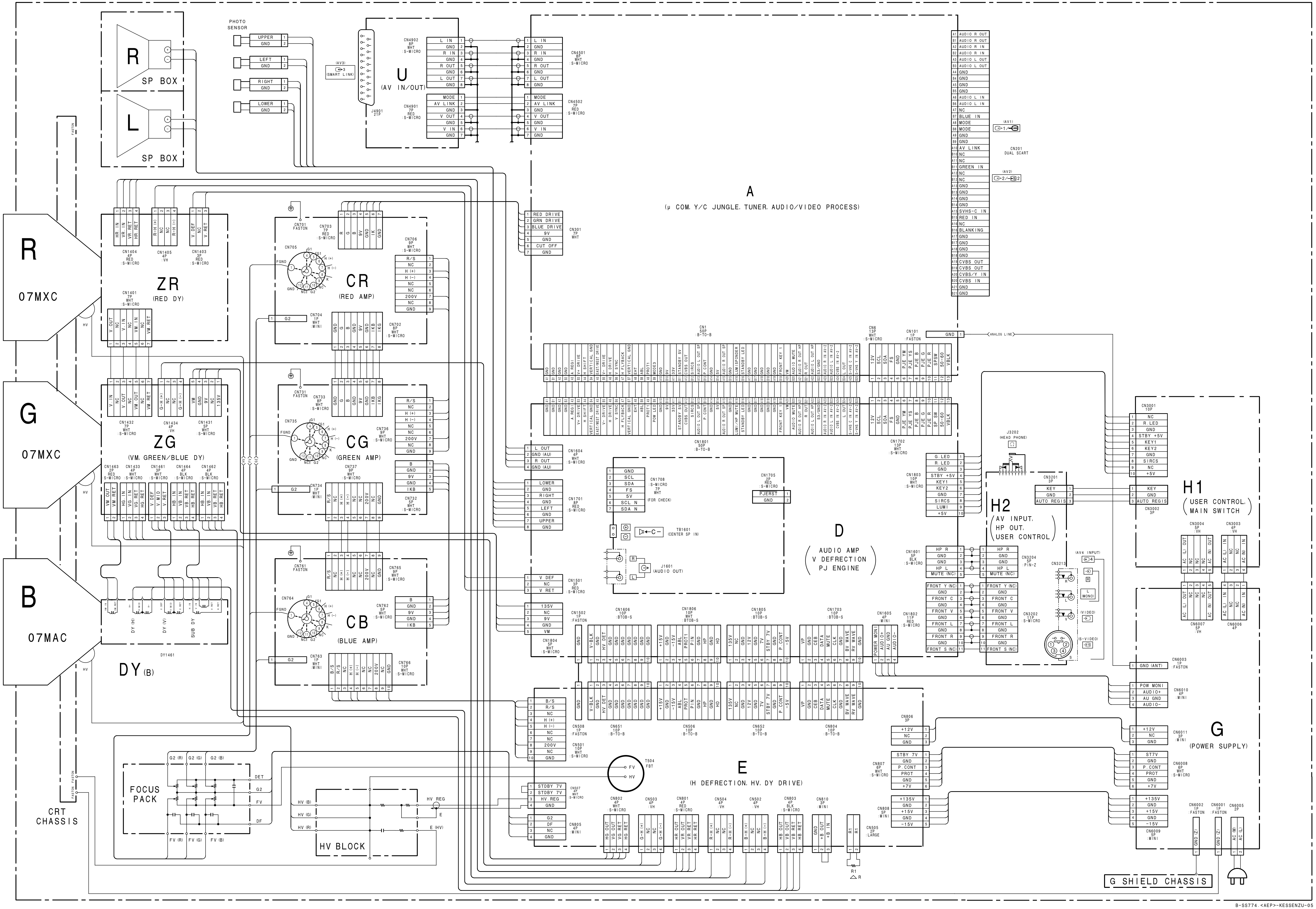

41PX1/41PX1K
J4901
(AV3)
3
(SMART LINK)
CN4901
7 GND
6 V IN
5 GND
4 V OUT
3 GND
2 AV LINK
1 MODE
F
TO A BOARD CN4502
CN4902
8 GND
7 L OUT
6 GND
5 R OUT
4 GND
3 R IN
2 GND
1 L IN
G
TO A BOARD CN4501
U (AV IN/OUT)
(41PX1/41PX1K)


41PX1R
CN2703
(AV3)
3
(SMART LINK)
CN2701
1 GND
2 CVBS/V IN
3 GND
4 CVBS OUT
5 GND
6 C IN
7 MODE
Y
TO D BOARD CN1808
CN2702
1 L IN
2 GND
3 R IN
4 GND
5 L OUT
6 GND
7 R OUT
8 GND
X
TO D BOARD CN1807
UE (AV IN/OUT)
(41PX1R)

7-2. FRAME SCHEMATIC DIAGRAM (1) (41PX1/41PX1K)


R SP BOX
L SP BOX
PHOTO SENSOR
U (AV IN/OUT)
J4901 21P
A (μ COM, Y/C JUNGLE, TUNER, AUDIO/VIDEO PROCESS)
CN201 DUAL SCART
(AV1)
(AV2)
R 07MXC
G 07MXC
B 07MAC
ZR (RED DY)
ZG (VM, GREEN/BLUE DY)
DY(B)
DY1461
CR (RED AMP)
CG (GREEN AMP)
CB (BLUE AMP)
D
AUDIO AMP
V DEFRECTION
PJ ENGINE
J1601 (AUDIO OUT)
TB1601 (CENTER SP IN)
H2
AV INPUT,
HP OUT,
USER CONTROL
J3202 (HEAD PHONE)
(AV4 INPUT)
H1
USER CONTROL,
MAIN SWITCH
E
(H DEFRECTION, HV, DY DRIVE)
T504 FBT
FV
HV
FOCUS PACK
HV BLOCK
HV REG
CRT CHASSIS
G
(POWER SUPPLY)
G SHIELD CHASSIS
ANALOG LINE
FASTON
B-SS774.<AEP>-KESSENZU-05

FRAME SCHEMATIC DIAGRAM (2) (41PX1R)

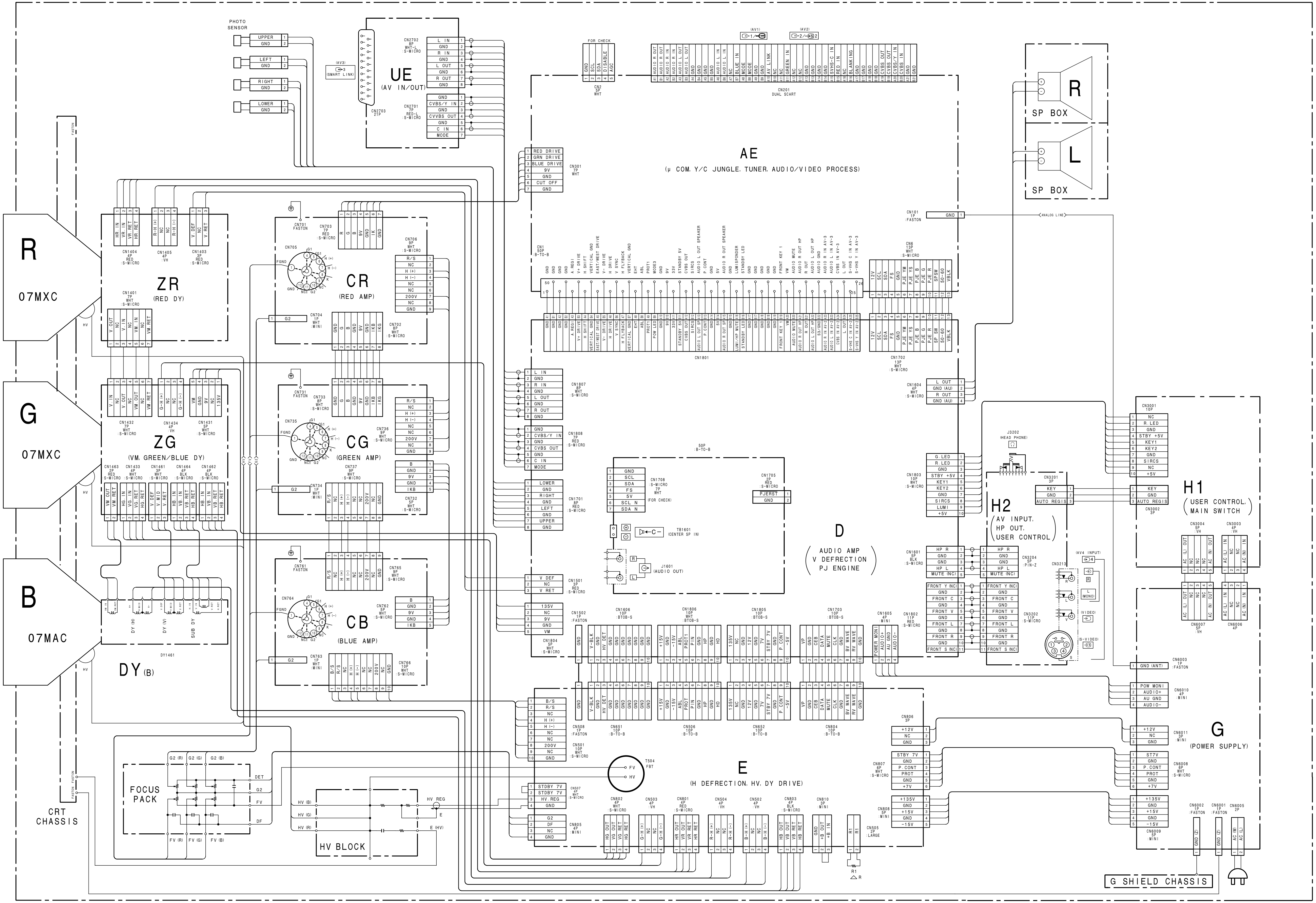
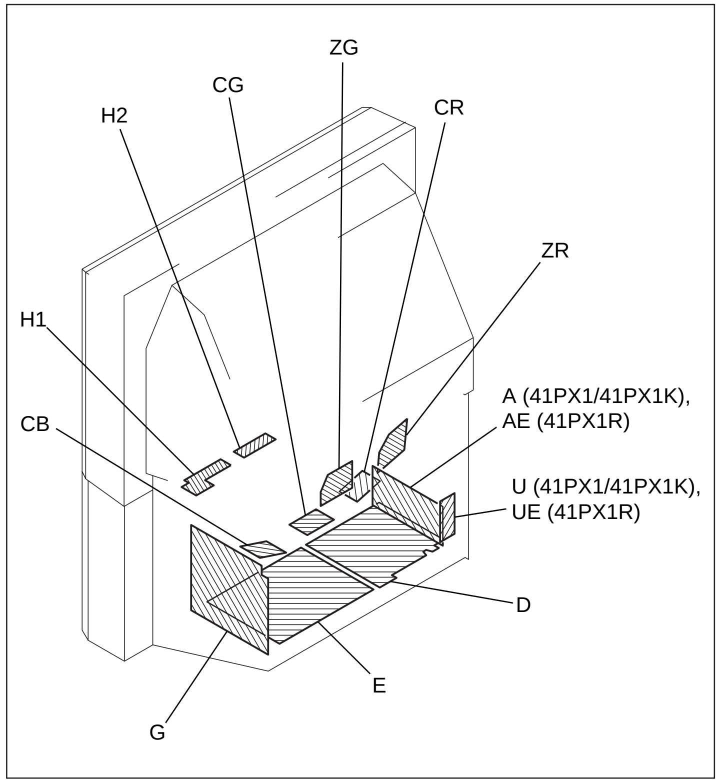


PHOTO SENSOR
UPPER
LEFT
RIGHT
LOWER
UE
(AV IN/OUT)
(AV3) (SMART LINK)
AE
(μ COM, Y/C JUNGLE, TUNER, AUDIO/VIDEO PROCESS)
FOR CHECK
CN201 DUAL SCART
R
SP BOX
L
SP BOX
R
07MXC
ZR
(RED DY)
CR
(RED AMP)
G
07MXC
ZG
(VM, GREEN/BLUE DY)
CG
(GREEN AMP)
B
07MAC
DY(B)
DY1461
CB
(BLUE AMP)
D
AUDIO AMP
V DEFRECTION
PJ ENGINE
50P B-TO-B
TB1601 (CENTER SP IN)
J1601 (AUDIO OUT)
H2
(AV INPUT, HP OUT, USER CONTROL)
J3202 (HEAD PHONE)
(AV4 INPUT)
H1
(USER CONTROL, MAIN SWITCH)
G
(POWER SUPPLY)
E
(H DEFRECTION, HV, DY DRIVE)
T504 FBT
FOCUS PACK
HV BLOCK
CRT CHASSIS
G SHIELD CHASSIS
ANALOG LINE

7-3. CIRCUIT BOARDS LOCATION



7-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- The parts marked "#" on schematic diagrams are not mounted.
- All capacitors are in μF unless otherwise noted. (pF: μμF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 M digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ∗ : Can not be measured.
- NO MARK: Common
- < >: SECAM
- ( ) : NTSC 3.58 MHz
- Circled numbers are waveform references.
- ▽ : B + bus.
- ▽ : B – bus.
- ⇨ : Signal path.
- The components identified by ⧓ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. (See page 31)
- When replacing the part in below table, be sure to perform the related adjustment.

Part Replaced (⧓)
R1

Part Replaced (◪)	
E Board	C515, C516, C554, D504, D507, L506, Q502, R1, R514, R516, R517, T502, T504 (FBT)
G Board	IC6005

- Divided schematic diagram
  Schematic diagrams of A, AE, D, and E boards are divided into several pieces. Information to where the line is to be connected is printed at the end of each line.
  For example, [**TO A1/5,A2/5_1**] means the line is connected to Ref. No. 1 of A (1/5) and A (2/5) schematic diagrams.

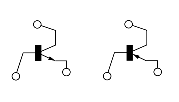
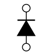
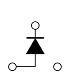
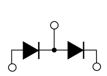
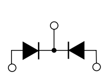
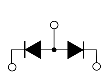
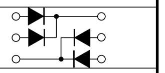
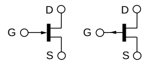
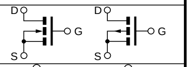
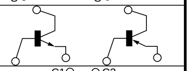
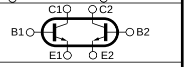
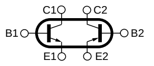
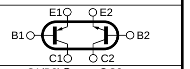
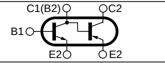
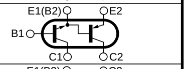
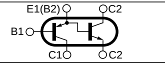
TO A1/5,A2/5_1
→ Ref. No.
→ Name of divided schematic diagram

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

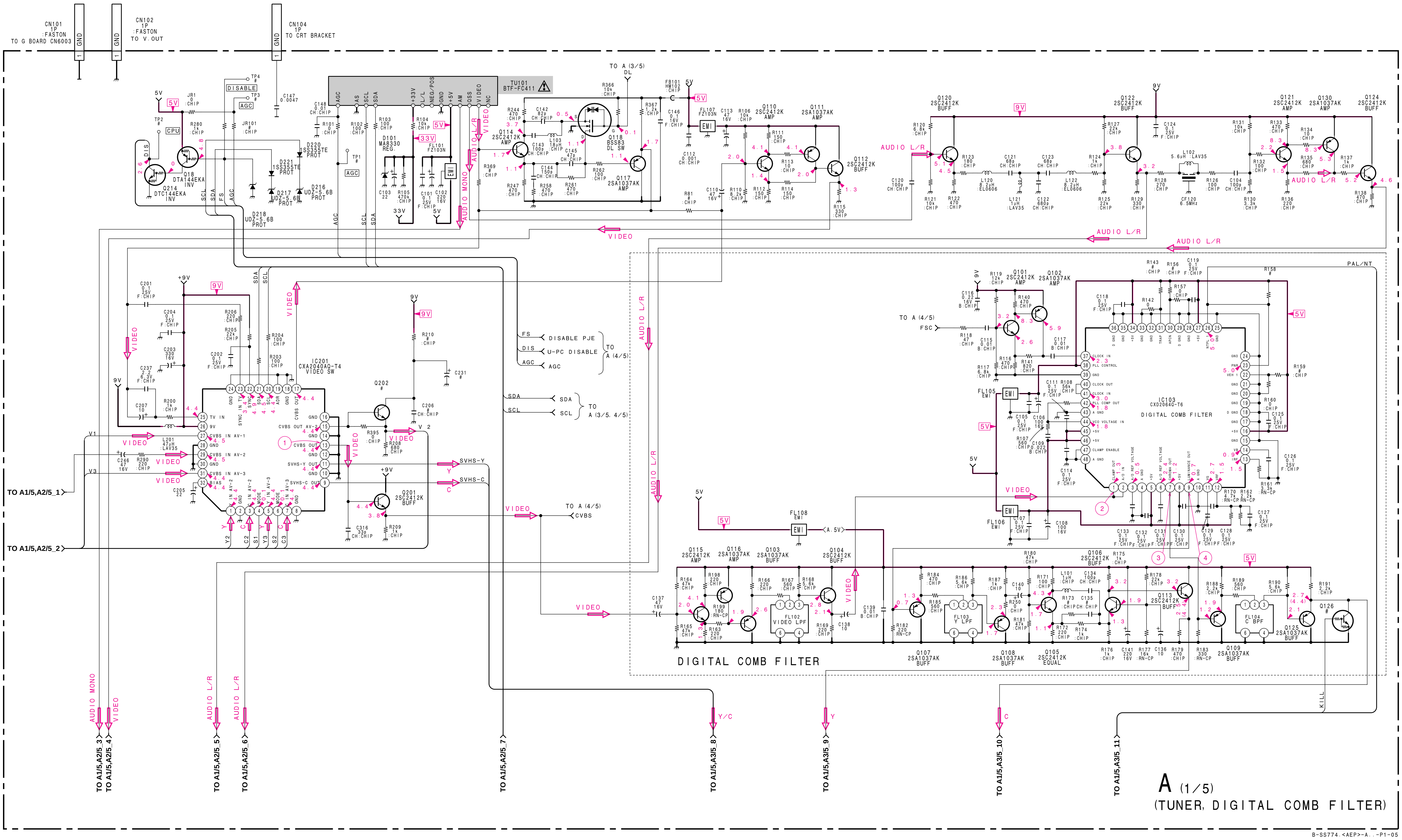
Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	┳	Collector Base Emitter	
②	Transistor	▬	Collector Base Emitter	
③	Diode	⊓	Cathode Anode	
④	Diode	┳	Cathode Anode (NC)	
⑤	Diode	▬	Cathode Anode (NC)	
⑥	Diode	┳	Common Anode Cathode	
⑦	Diode	▬	Common Anode Cathode	
⑧	Diode	┳	Common Anode Anode	
⑨	Diode	▬	Common Anode Anode	
⑩	Diode	┳	Common Cathode Cathode	
⑪	Diode	▬	Common Cathode Cathode	
⑫	Diode	▮	Anode Cathode Anode Anode Cathode Anode	
⑬	Transistor (FET)	▮	Drain Source Gate	
⑭	Transistor (FET)	┣	Drain Source Gate	
⑮	Transistor (FET)	▮	☐ Source ☐ Drain ☐ Gate	
⑯	Transistor	▮	☐ Emitter ☐ Collector ☐ Base	
⑰	Transistor	┿	C2 B1 E1 E2 B2 C1	
⑱	Transistor	┿	C1 B2 E2 E1 B1 C2	
⑲	Transistor	▬	C1 B2 E2 E1 B1 C2	
⑳	Transistor	▬	C1 B2 E2 E1 B1 C2	
㉑	Transistor	▬	E2 B1 E1 C2 C1(B2)	
㉒	Transistor	▬	(B2) B1 E1 E2 C1 C2	
㉓	Transistor	▬	(B2) E2 E1 B1 C2 C1	
–	Discrete semiconductot			

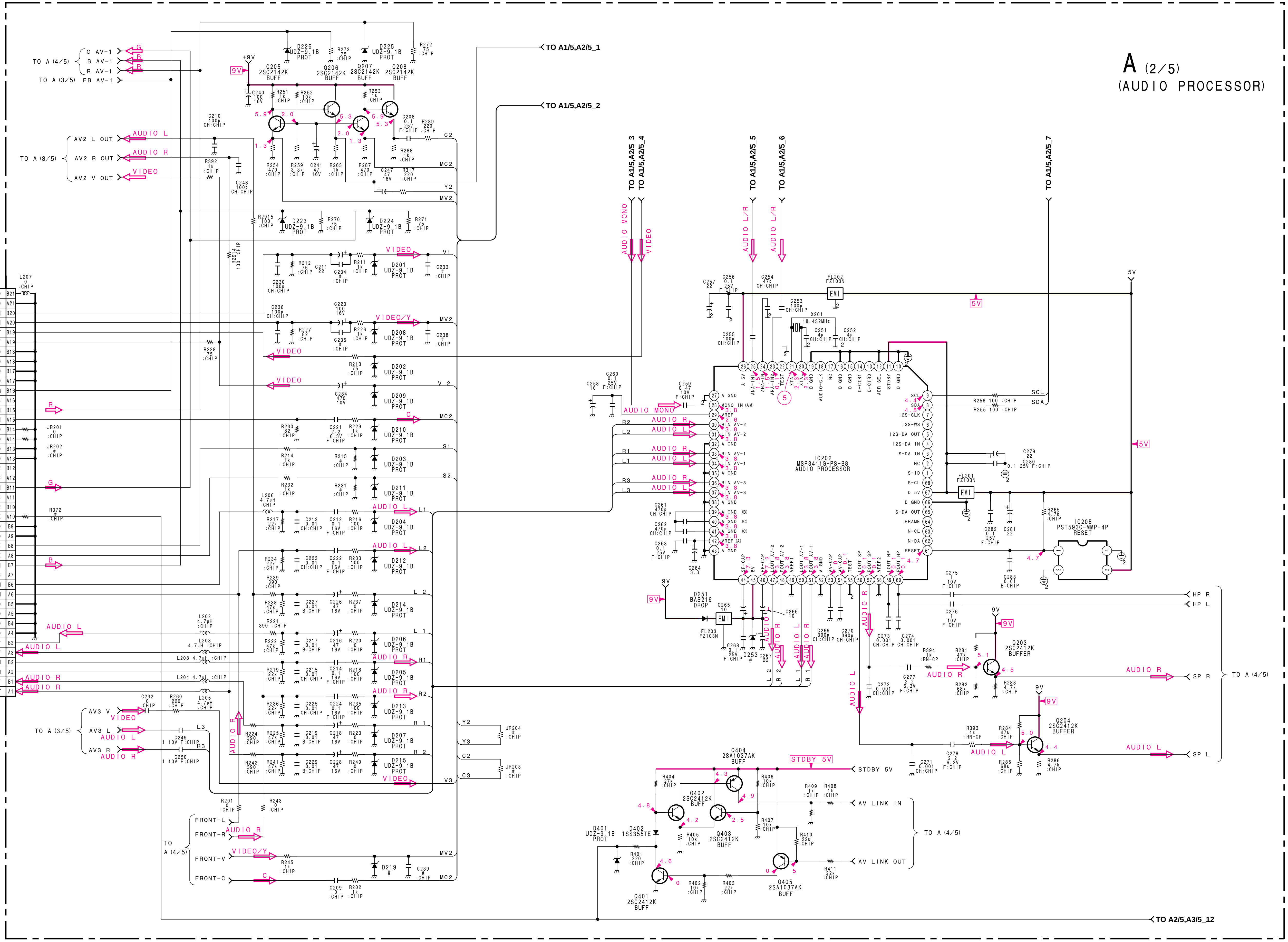
(Chip semiconductors that are not actually used are included.)

Ver.1.5

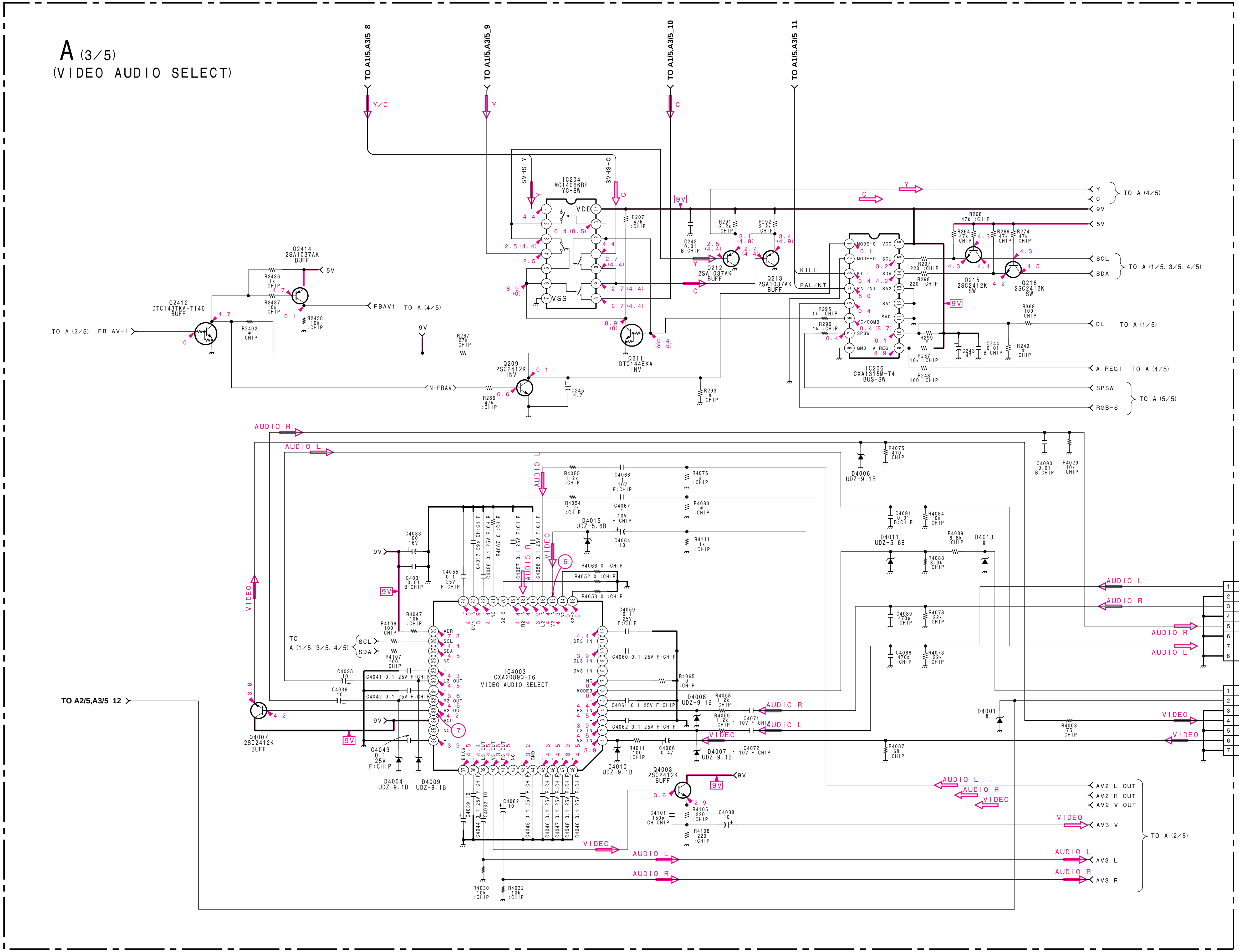
(1) Schematic Diagram of A (1/5) Board (41PX1/41PX1K)


CN101 1P :FASTON TO G BOARD CN6003
CN102 1P :FASTON TO V.OUT
CN104 1P TO CRT BRACKET
GND
TU101 BTF-FC411
IC201 CXA2040AQ-T4 VIDEO SW
IC103 CXD2064Q-T6 DIGITAL COMB FILTER
DIGITAL COMB FILTER
TO A1/5,A2/5_1
TO A1/5,A2/5_2
TO A1/5,A2/5_3
TO A1/5,A2/5_4
TO A1/5,A2/5_5
TO A1/5,A2/5_6
TO A1/5,A2/5_7
TO A1/5,A3/5_8
TO A1/5,A3/5_9
TO A1/5,A3/5_10
TO A1/5,A3/5_11
AUDIO MONO
VIDEO
AUDIO L/R
Y/C
Y
C
KILL
SVHS-Y
SVHS-C
DISABLE PJE
U-PC DISABLE
TO A (4/5)
SDA
SCL
TO A (3/5, 4/5)
TO A (3/5)
TO A (4/5) CVBS
TO A (4/5) FSC
A.5V
PAL/NT
A (1/5)
(TUNER, DIGITAL COMB FILTER)
B-SS774.<AEP>-A..-P1-05

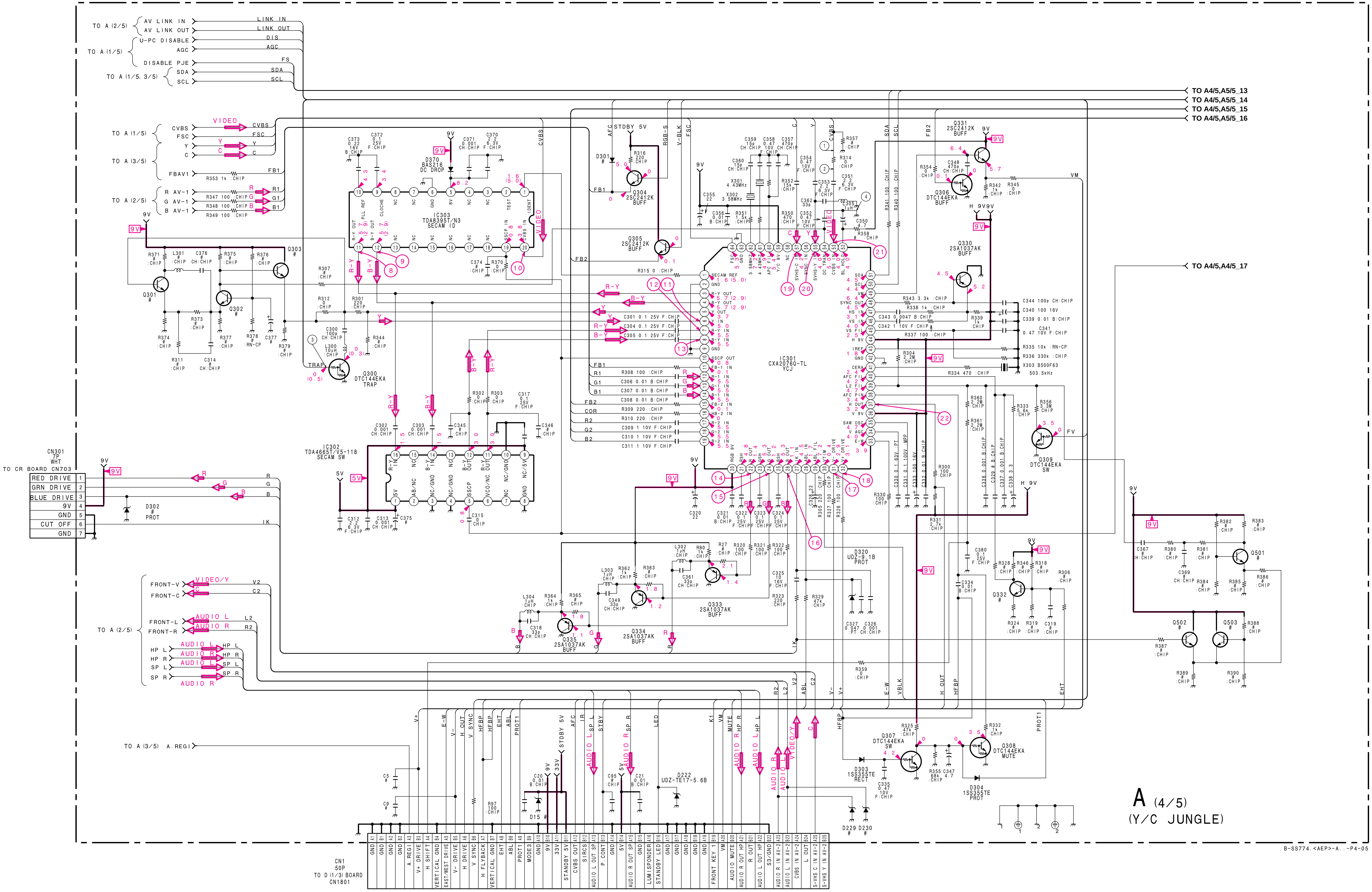
(2) Schematic Diagram of A (2/5) Board (41PX1/41PX1K)


A (2/5)
(AUDIO PROCESSOR)
CN201
DUAL SCART
IC202
MSP3411G-PS-B8
AUDIO PROCESSOR
IC205
PST593C-MMP-4P
RESET
X201
18.432MHz
FL202
FZ103N
FL201
FZ103N
FL203
FZ103N
Q205
2SC2142K
BUFF
Q206
2SC2142K
BUFF
Q207
2SC2142K
BUFF
Q208
2SC2142K
BUFF
Q203
2SC2412K
BUFFER
Q204
2SC2412K
BUFFER
Q401
2SC2412K
BUFF
Q402
2SC2412K
BUFF
Q403
2SC2412K
BUFF
Q404
2SA1037AK
BUFF
Q405
2SA1037AK
BUFF
D251
BAS216
DROP
D401
UDZ-9.1B
PROT
D402
1SS355TE
TO A1/5,A2/5_1
TO A1/5,A2/5_2
TO A1/5,A2/5_3
TO A1/5,A2/5_4
TO A1/5,A2/5_5
TO A1/5,A2/5_6
TO A1/5,A2/5_7
TO A2/5,A3/5_12
TO A (4/5)
TO A (3/5)
G AV-1
B AV-1
R AV-1
FB AV-1
AV2 L OUT
AV2 R OUT
AV2 V OUT
AV3 V
AV3 L
AV3 R
FRONT-L
FRONT-R
FRONT-V
FRONT-C
HP R
HP L
SP R
SP L
STDBY 5V
AV LINK IN
AV LINK OUT
AUDIO MONO
AUDIO L/R
AUDIO R
AUDIO L
VIDEO
VIDEO/Y
STDBY 5V
9V
5V
(AV1)
(AV2)

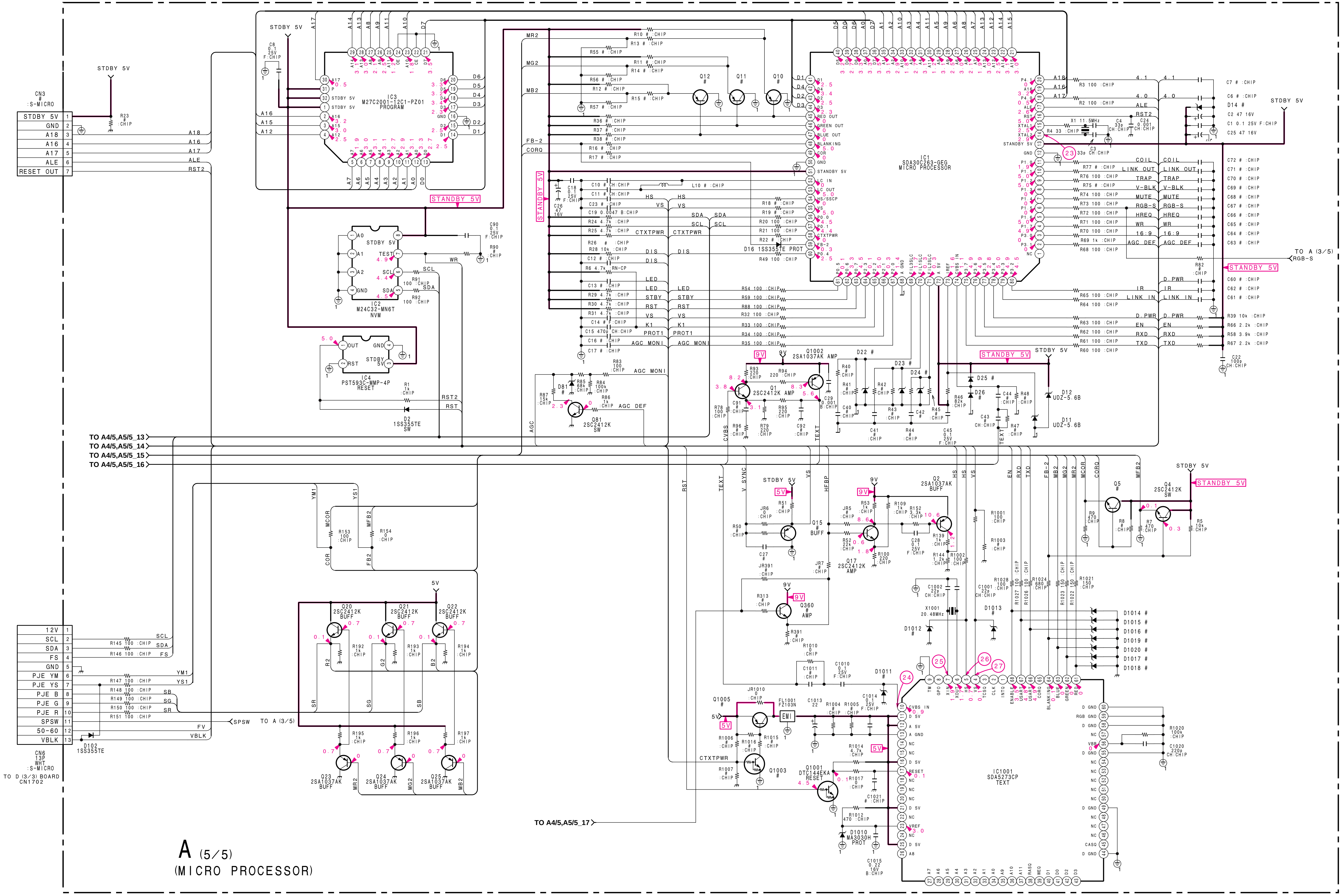
(3) Schematic Diagram of A (3/5) Board (41PX1/41PX1K)


A (3/5)
(VIDEO AUDIO SELECT)
TO A1/5,A3/5_8
TO A1/5,A3/5_9
TO A1/5,A3/5_10
TO A1/5,A3/5_11
TO A2/5,A3/5_12
Y/C
Y
C
SVHS-Y
SVHS-C
IC204
MC14066BF
YC-SW
VDD
VSS
R207 47k :CHIP
9V
5V
R291 2.2k :CHIP
R292 2.2k :CHIP
C242 0.01 B:CHIP
Q212 2SA1037AK BUFF
Q213 2SA1037AK BUFF
KILL
PAL/NT
IC206
CXA1315M-T4
BUS-SW
MODE-S
MODE-O
VCC
SCL
SDA
SA1
SA2
SAO
V/COMB
SPSW
GND
A.REGI
R297 220 :CHIP
R298 220 :CHIP
R299
R257 10k :CHIP
R248 100 :CHIP
C243 47
C244 0.01 B:CHIP
R249
R295 1k :CHIP
R296 1k :CHIP
R268 47k :CHIP
R264 47k :CHIP
R269 47k :CHIP
R274 47k :CHIP
Q215 2SC2412K SW
Q216 2SC2412K SW
R368 100 :CHIP
Y
C
9V
5V
TO A (4/5)
SCL
SDA
TO A (1/5, 3/5, 4/5)
DL
TO A (1/5)
A.REGI
TO A (4/5)
SPSW
RGB-S
TO A (5/5)
Q2414 2SA1037AK BUFF
R2436 1k :CHIP
R2437 10k :CHIP
R2438 10k :CHIP
Q2412 DTC143TKA-T146 BUFF
R2402 :CHIP
FBAV1
TO A (4/5)
TO A (2/5)
FB AV-1
R267 27k :CHIP
Q209 2SC2412K INV
R266 47k :CHIP
N-FBAV
C245 4.7
Q211 DTC144EKA INV
R293 :CHIP
AUDIO R
AUDIO L
VIDEO
IC4003
CXA2089Q-T6
VIDEO AUDIO SELECT
C4033 100 16V
C4031 0.01 B:CHIP
C4055 0.1 25V F:CHIP
R4106 100 :CHIP
R4047 10k :CHIP
R4107 100 :CHIP
TO A (1/5, 3/5, 4/5)
SCL
SDA
C4035 10
C4036 10
C4041 0.1 25V F:CHIP
C4042 0.1 25V F:CHIP
C4043 0.1 25V F:CHIP
D4004 UDZ-9.1B
D4009 UDZ-9.1B
Q4007 2SC2412K BUFF
R4055 1.2k :CHIP
R4054 1.2k :CHIP
C4068 1 10V F:CHIP
C4067 1 10V F:CHIP
C4064 10
D4015 UDZ-5.6B
R4066 0 :CHIP
R4052 0 :CHIP
R4053 0 :CHIP
C4059 0.1 25V F:CHIP
C4060 0.1 25V F:CHIP
C4061 0.1 25V F:CHIP
C4062 0.1 25V F:CHIP
R4065 0 :CHIP
D4008 UDZ-9.1B
R4058 1.2k :CHIP
R4059 1.2k :CHIP
C4071 1 10V F:CHIP
C4072 1 10V F:CHIP
D4007 UDZ-9.1B
D4010 UDZ-9.1B
R4011 100 :CHIP
C4066 0.47
Q4003 2SC2412K BUFF
C4101 150p CH:CHIP
R4105 220 :CHIP
R4108 220 :CHIP
C4038 10
R4030 10k :CHIP
R4032 10k :CHIP
R4076 :CHIP
R4083 :CHIP
R4111 1k :CHIP
R4075 470 :CHIP
D4006 UDZ-9.1B
C4090 0.01 B:CHIP
R4029 10k :CHIP
C4091 0.01 B:CHIP
R4084 10k :CHIP
D4011 UDZ-5.6B
R4089 6.8k :CHIP
D4013
R4088 3.3k :CHIP
C4089 470p :CHIP
R4078 22k :CHIP
C4088 470p :CHIP
R4073 22k :CHIP
D4001
R4003 75 :CHIP
R4087 68 :CHIP
1 L IN
2 GND
3 R IN
4 GND
5 R OUT
6 GND
7 L OUT
8 GND
CN4501 8P WHT :S-MICRO
TO U BOARD:CN4902
1 MODE
2 AV LINK
3 GND
4 V OUT
5 GND
6 V IN
7 GND
CN4502 7P RED :S-MICRO
TO U BOARD:CN4901
AV2 L OUT
AV2 R OUT
AV2 V OUT
AV3 V
AV3 L
AV3 R
TO A (2/5)

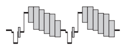
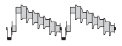
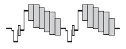
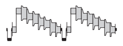
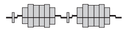
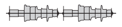
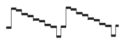
(4) Schematic Diagram of A (4/5) Board (41PX1/41PX1K)


TO A (2/5)
AV LINK IN
AV LINK OUT
TO A (1/5)
U-PC DISABLE
AGC
DISABLE PJE
TO A (1/5, 3/5)
SDA
SCL
TO A4/5,A5/5_13
TO A4/5,A5/5_14
TO A4/5,A5/5_15
TO A4/5,A5/5_16
TO A4/5,A4/5_17
CVBS
FSC
Y
C
FBAV1
R AV-1
G AV-1
B AV-1
IC303
TDA8395T/N3
SECAM ID
D370
BAS216
DC DROP
Q304
2SC2412K
BUFF
Q305
2SC2412K
BUFF
Q331
2SC2412K
BUFF
Q306
DTC144EKA
BUFF
Q330
2SA1037AK
BUFF
IC301
CXA2076Q-TL
Y/C J
X301 4.43MHz
X302 3.58MHz
X303 B500F63 503.5kHz
Q300
DTC144EKA
TRAP
IC302
TDA4665T/V5-118
SECAM SW
Q309
DTC144EKA
SW
CN301
7P
WHT
TO CR BOARD CN703
RED DRIVE
GRN DRIVE
BLUE DRIVE
9V
GND
CUT OFF
GND
D302
PROT
FRONT-V
FRONT-C
VIDEO/Y
TO A (2/5)
FRONT-L
FRONT-R
AUDIO L
AUDIO R
HP L
HP R
SP L
SP R
Q335
2SA1037AK
BUFF
Q334
2SA1037AK
BUFF
Q333
2SA1037AK
BUFF
D320
UDZ-9.1B
PROT
Q332
Q501
Q502
Q503
TO A (3/5) A.REGI
D222
UDZ-TE17-5.6B
Q307
DTC144EKA
SW
Q308
DTC144EKA
MUTE
D303
1SS355TE
RECT
D304
1SS355TE
PROT
D229 D230
CN1
50P
TO D (1/3) BOARD
CN1801
A (4/5)
(Y/C JUNGLE)
B-SS774.<AEP>-A..-P4-05

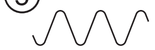
(5) Schematic Diagram of A (5/5) Board (41PX1/41PX1K)


A (5/5)
(MICRO PROCESSOR)
IC1 SDA30C263-GEG MICRO PROCESSOR
IC2 M24C32-MN6T NVM
IC3 M27C2001-12C1-PZ01 PROGRAM
IC4 PST593C-MMP-4P RESET
IC1001 SDA5273CP TEXT
CN3 S-MICRO
STDBY 5V
GND
A18
A16
A17
ALE
RESET OUT
CN6 13P WHT S-MICRO
TO D (3/3) BOARD CN1702
12V
SCL
SDA
FS
GND
PJE YM
PJE YS
PJE B
PJE G
PJE R
SPSW
50-60
VBLK
TO A4/5,A5/5_13
TO A4/5,A5/5_14
TO A4/5,A5/5_15
TO A4/5,A5/5_16
TO A4/5,A5/5_17
TO A (3/5) RGB-S
TO A (3/5)
STANDBY 5V
X1 11.5MHz
X1001 20.48MHz
FL1001 FZ1103N
D12 UDZ-5.6B
D11 UDZ-5.6B
D1010 MA3030H PROT
Q1 2SC2412K AMP
Q1002 2SA1037AK AMP
Q2 2SA1037AK BUFF
Q4 2SC2412K SW
Q17 2SC2412K AMP
Q20 2SC2412K BUFF
Q21 2SC2412K BUFF
Q22 2SC2412K BUFF
Q23 2SA1037AK BUFF
Q24 2SA1037AK BUFF
Q25 2SA1037AK BUFF
Q81 2SC2412K SW
Q360 AMP
Q1001 DTC144EKA RESET
D2 1SS355TE SW
D102 1SS355TE
D16 1SS355TE PROT

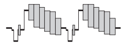
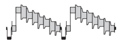
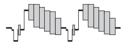
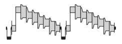
- **A (1/5) BOARD WAVEFORMS (41PX1/41PX1K)**

① PAL/NTSC  1.1 Vp-p (H)	① SECAM  1.2 Vp-p (H)	② PAL/NTSC  1.6 Vp-p (H)	② SECAM  1.8 Vp-p (H)	③ PAL/NTSC  0.9 Vp-p (H)	③ SECAM  1.0 Vp-p (H)	④  1.2 Vp-p (H)

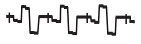
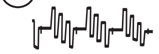
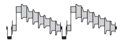
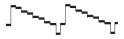
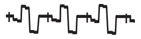
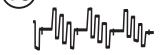
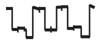
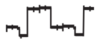
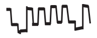
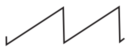
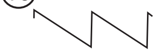
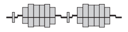
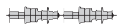
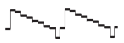
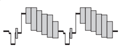
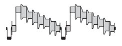
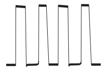
- **A (2/5) BOARD WAVEFORM (41PX1/41PX1K)**

⑤  2.5 Vp-p (18.432 MHz)

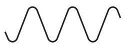
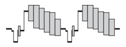
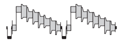
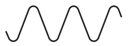
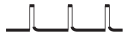
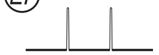
- **A (3/5) BOARD WAVEFORMS (41PX1/41PX1K)**

⑥ PAL/NTSC  0.4 Vp-p (H)	⑥ SECAM  0.4 Vp-p (H)	⑦ PAL/NTSC  0.2 Vp-p (H)	⑦ SECAM  0.2 Vp-p (H)

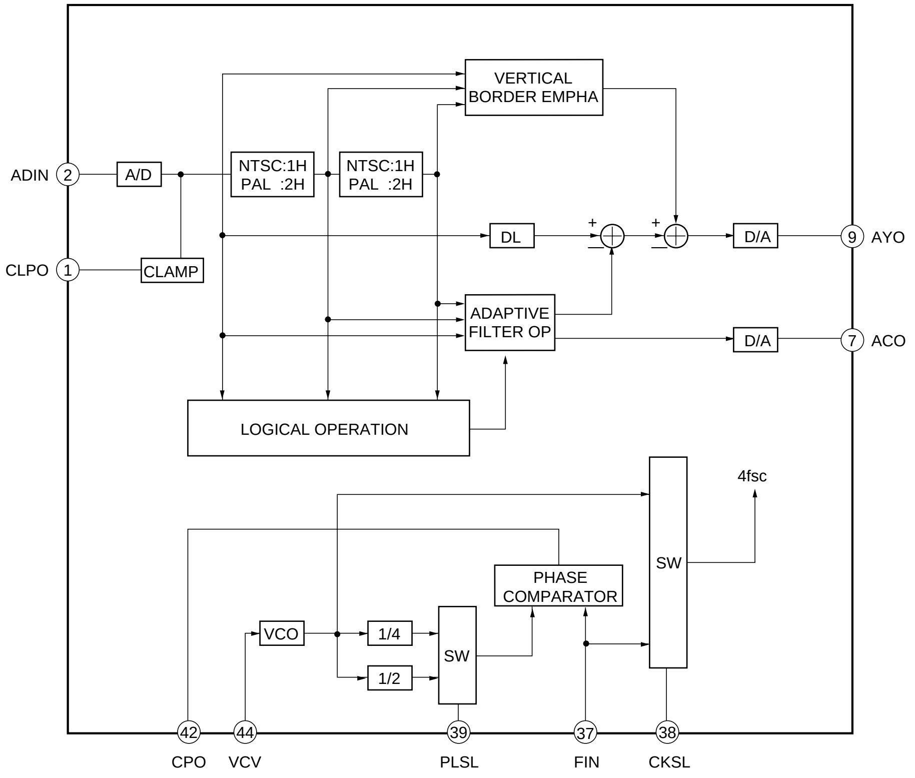
- **A (4/5) BOARD WAVEFORMS (41PX1/41PX1K)**

⑧ SECAM  1.3 Vp-p (H)	⑨ SECAM  1.7 Vp-p (H)	⑩ SECAM  1.5 Vp-p (H)	⑪  1.3 Vp-p (H)	⑫  1.0 Vp-p (H)	⑬  1.3 Vp-p (H)	⑭  3.4 Vp-p (H)
⑮  2.5 Vp-p (H)	⑯  2.8 Vp-p (H)	⑰  1.1 Vp-p (V)	⑱  1.1 Vp-p (V)	⑲ PAL/NTSC  0.8 Vp-p (H)	⑲ SECAM  0.9 Vp-p (H)	⑳  1.2 Vp-p (H)
㉑ PAL/NTSC  1.1 Vp-p (H)	㉑ SECAM  1.5 Vp-p (H)	㉒  6.8 Vp-p (H)				

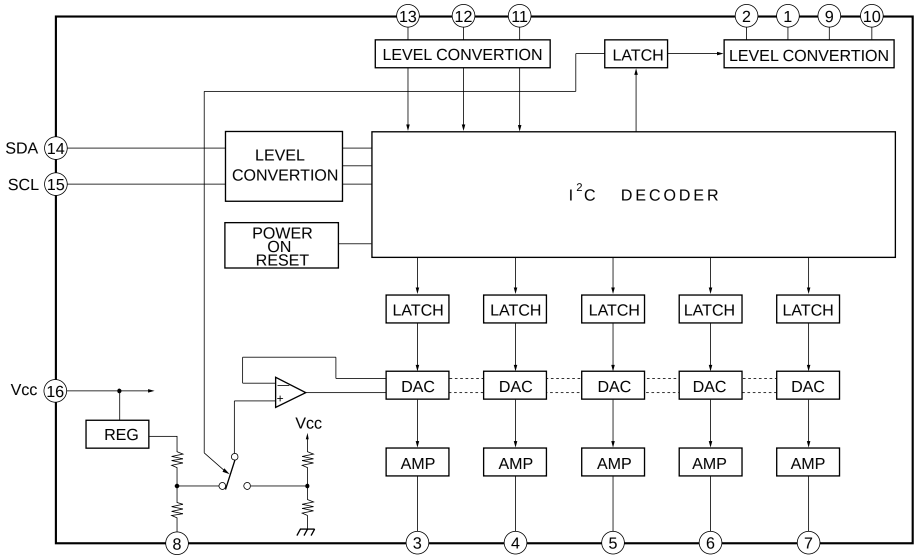
- **A (5/5) BOARD WAVEFORMS (41PX1/41PX1K)**

㉓  5.5 Vp-p (11.5 MHz)	㉔ PAL/NTSC  2.1 Vp-p (H)	㉔ SECAM  2.9 Vp-p (H)	㉕  2.3 Vp-p (20 MHz)	㉖  6.4 Vp-p (H)	㉗  3.2 Vp-p (V)

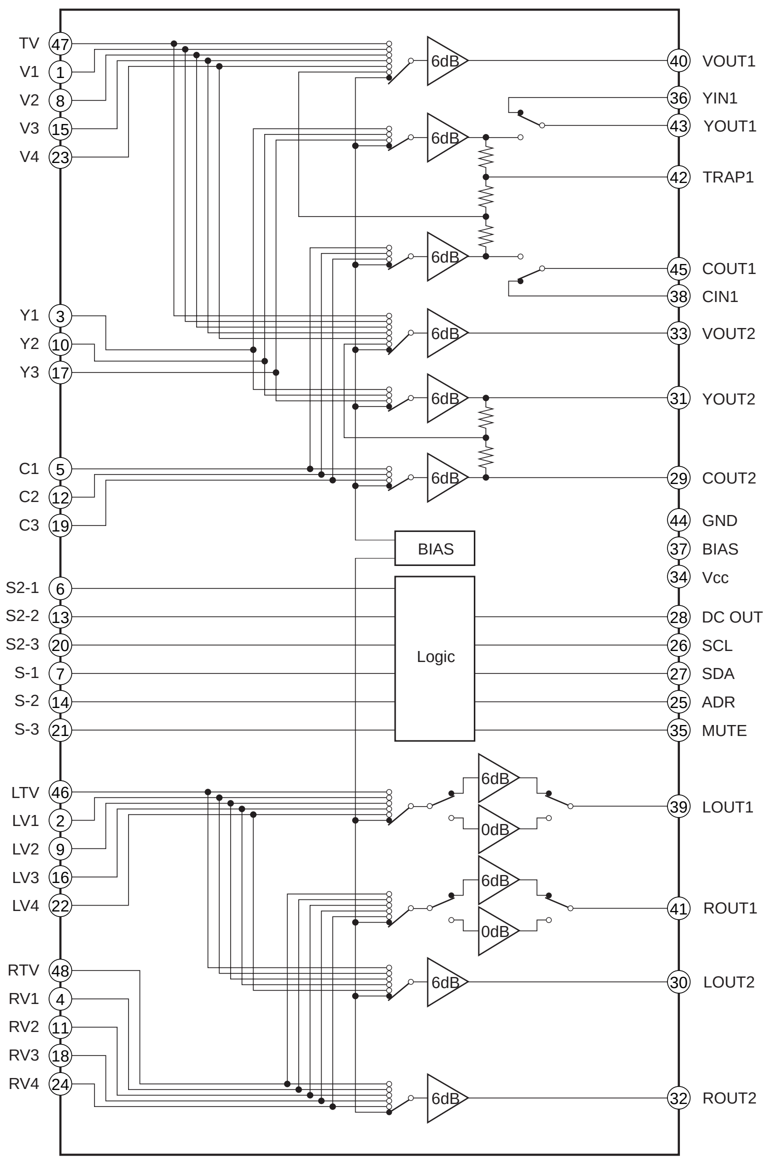
- **A (1/5) BOARD IC103 (41PX1/41PX1K)**
CXD2064Q


VERTICAL BORDER EMPHA
ADIN 2
A/D
NTSC:1H PAL :2H
NTSC:1H PAL :2H
DL
+
+
D/A
9 AYO
CLPO 1
CLAMP
ADAPTIVE FILTER OP
D/A
7 ACO
LOGICAL OPERATION
4fsc
SW
PHASE COMPARATOR
VCO
1/4
1/2
SW
42 CPO
44 VCV
39 PLSL
37 FIN
38 CKSL

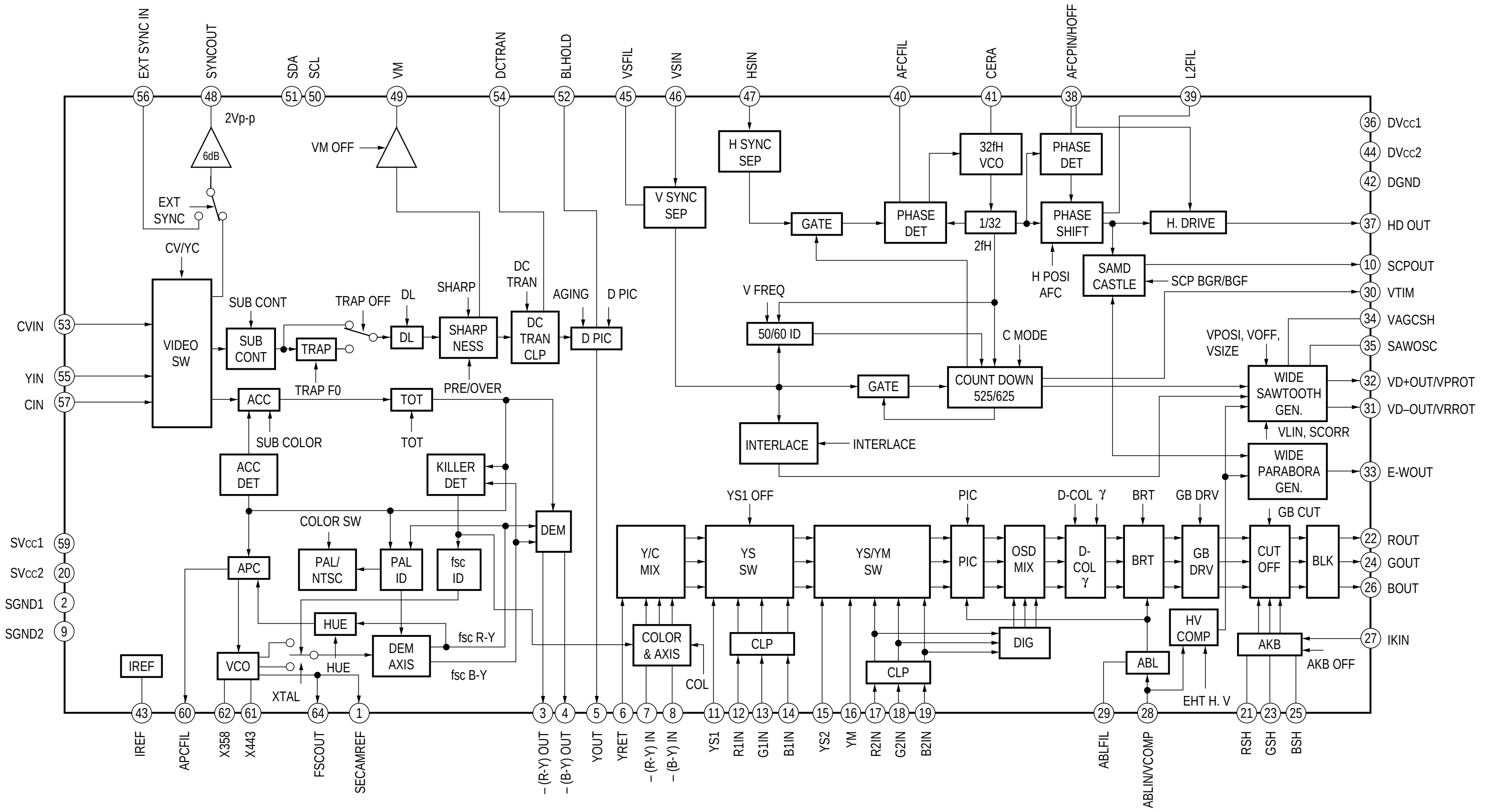
- **A (3/5) BOARD IC206 (41PX1/41PX1K)**
CXA1315M


13
12
11
2
1
9
10
LEVEL CONVERTION
LATCH
LEVEL CONVERTION
SDA 14
SCL 15
LEVEL CONVERTION
I²C DECODER
POWER ON RESET
LATCH
LATCH
LATCH
LATCH
LATCH
Vcc 16
DAC
DAC
DAC
DAC
DAC
REG
Vcc
AMP
AMP
AMP
AMP
AMP
8
3
4
5
6
7

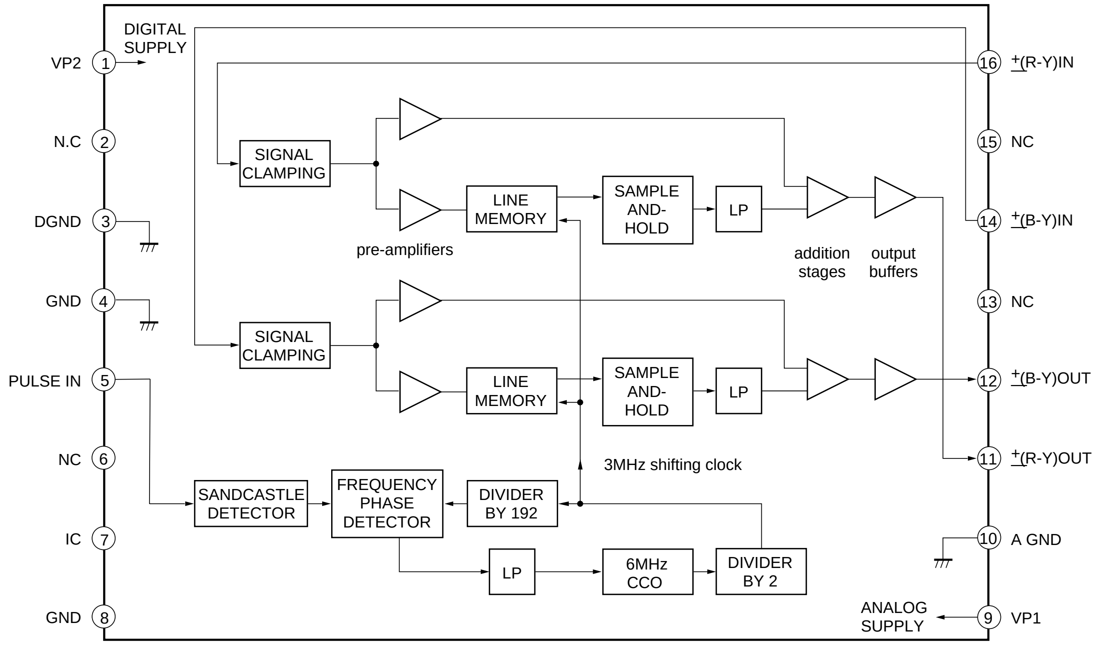
- **A (3/5) BOARD IC4003 (41PX1/41PX1K)**
  CXA2089Q


TV 47
V1 1
V2 8
V3 15
V4 23
Y1 3
Y2 10
Y3 17
C1 5
C2 12
C3 19
S2-1 6
S2-2 13
S2-3 20
S-1 7
S-2 14
S-3 21
LTV 46
LV1 2
LV2 9
LV3 16
LV4 22
RTV 48
RV1 4
RV2 11
RV3 18
RV4 24
6dB
0dB
BIAS
Logic
40 VOUT1
36 YIN1
43 YOUT1
42 TRAP1
45 COUT1
38 CIN1
33 VOUT2
31 YOUT2
29 COUT2
44 GND
37 BIAS
34 Vcc
28 DC OUT
26 SCL
27 SDA
25 ADR
35 MUTE
39 LOUT1
41 ROUT1
30 LOUT2
32 ROUT2

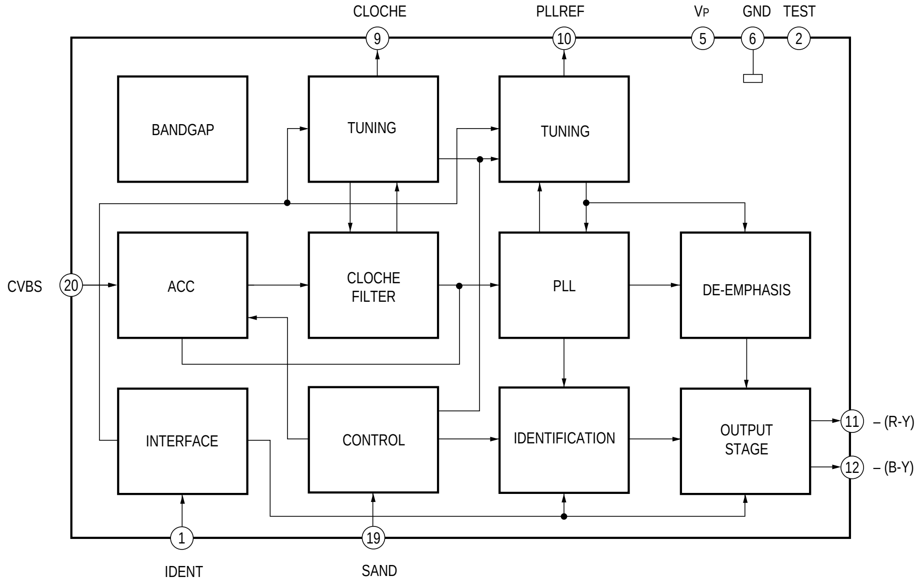
- **A (4/5) BOARD IC301 (41PX1/41PX1K)**
  CXA2076Q


EXT SYNC IN 56
SYNCOUT 48
SDA 51
SCL 50
VM 49
DCTRAN 54
BLHOLD 52
VSFIL 45
VSIN 46
HSIN 47
AFCFIL 40
CERA 41
AFCPIN/HOFF 38
L2FIL 39
2Vp-p
6dB
VM OFF
EXT SYNC
CV/YC
CVIN 53
YIN 55
CIN 57
VIDEO SW
SUB CONT
SUB CONT
TRAP OFF
TRAP
DL
DL
SHARP
SHARP NESS
DC TRAN
DC TRAN CLP
AGING
D PIC
D PIC
H SYNC SEP
V SYNC SEP
GATE
PHASE DET
32fH VCO
1/32
2fH
PHASE DET
PHASE SHIFT
H. DRIVE
H POSI AFC
SAMD CASTLE
SCP BGR/BGF
V FREQ
50/60 ID
C MODE
GATE
COUNT DOWN 525/625
INTERLACE
INTERLACE
VPOSI, VOFF, VSIZE
WIDE SAWTOOTH GEN.
VLIN, SCORR
WIDE PARABORA GEN.
ACC
TRAP F0
TOT
PRE/OVER
SUB COLOR
TOT
ACC DET
KILLER DET
COLOR SW
PAL/ NTSC
PAL ID
fsc ID
DEM
APC
HUE
DEM AXIS
fsc R-Y
fsc B-Y
VCO
HUE
XTAL
IREF
SVcc1 59
SVcc2 20
SGND1 2
SGND2 9
YS1 OFF
Y/C MIX
YS SW
YS/YM SW
COLOR & AXIS
COL
CLP
CLP
PIC
PIC
OSD MIX
D-COL γ
D-COL γ
BRT
BRT
GB DRV
GB DRV
GB CUT
CUT OFF
BLK
DIG
ABL
HV COMP
EHT H. V
AKB
AKB OFF
36 DVcc1
44 DVcc2
42 DGND
37 HD OUT
10 SCPOUT
30 VTIM
34 VAGCSH
35 SAWOSC
32 VD+OUT/VPROT
31 VD–OUT/VRROT
33 E-WOUT
22 ROUT
24 GOUT
26 BOUT
27 IKIN
43 IREF
60 APCFIL
62 X358
61 X443
64 FSCOUT
1 SECAMREF
3 – (R-Y) OUT
4 – (B-Y) OUT
5 YOUT
6 YRET
7 – (R-Y) IN
8 – (B-Y) IN
11 YS1
12 R1IN
13 G1IN
14 B1IN
15 YS2
16 YM
17 R2IN
18 G2IN
19 B2IN
29 ABLFIL
28 ABLIN/VCOMP
21 RSH
23 GSH
25 BSH

- **A (4/5) BOARD IC302 (41PX1/41PX1K)**
  TDA4665T

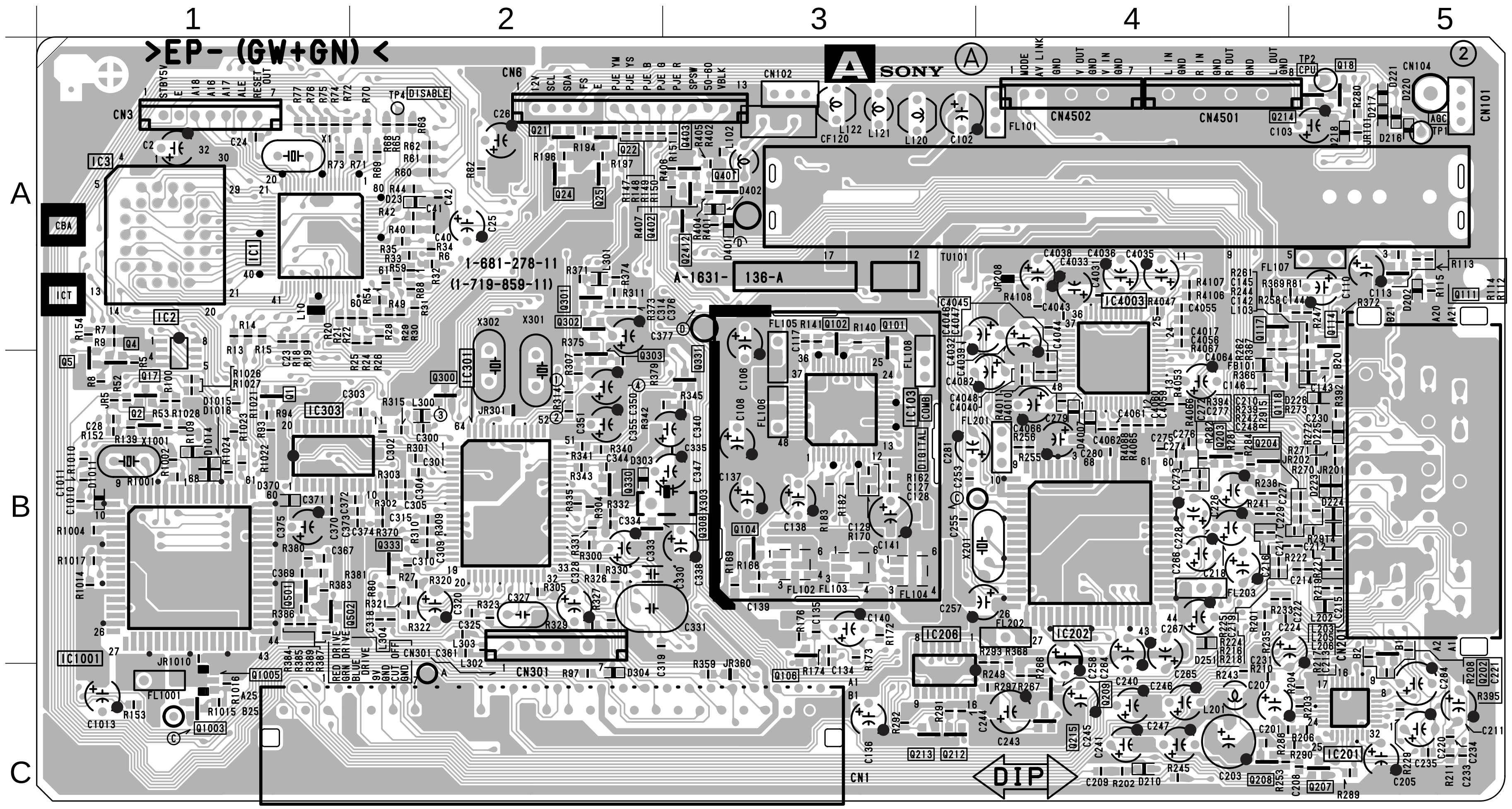

VP2 1
DIGITAL SUPPLY
N.C 2
DGND 3
GND 4
PULSE IN 5
NC 6
IC 7
GND 8
SIGNAL CLAMPING
SIGNAL CLAMPING
LINE MEMORY
LINE MEMORY
SAMPLE AND-HOLD
SAMPLE AND-HOLD
LP
LP
pre-amplifiers
addition stages
output buffers
SANDCASTLE DETECTOR
FREQUENCY PHASE DETECTOR
DIVIDER BY 192
3MHz shifting clock
LP
6MHz CCO
DIVIDER BY 2
ANALOG SUPPLY
16 +(R-Y)IN
15 NC
14 +(B-Y)IN
13 NC
12 +(B-Y)OUT
11 +(R-Y)OUT
10 A GND
9 VP1

- **A (4/5) BOARD IC303 (41PX1/41PX1K)**
  TDA8395T


CLOCHE 9
PLLREF 10
VP 5
GND 6
TEST 2
BANDGAP
TUNING
TUNING
CVBS 20
ACC
CLOCHE FILTER
PLL
DE-EMPHASIS
INTERFACE
CONTROL
IDENTIFICATION
OUTPUT STAGE
11 – (R-Y)
12 – (B-Y)
IDENT 1
SAND 19

A [µ COM, Y/C JUNGLE, TUNER, AUDIO/VIDEO PROCESS]

— A BOARD (Component Side) — (41PX1/41PX1K)


1
2
3
4
5
A
B
C
>EP- (GW+GN) <
A SONY
CN3
CN6
CN102
CN4502
CN4501
CN104
CN101
1-681-278-11
(1-719-859-11)
A-1631-
136-A
IC1
IC2
IC3
IC303
IC301
IC103
IC4003
IC202
IC206
IC201
IC1001
CN301
CN1
DIP

• A BOARD SEMICONDUCTOR LOCATION (Component Side)

IC	
IC1	A-1
IC2	A-1
IC3	A-1
IC103	B-3
IC201	C-5
IC202	B-4
IC206	B-3
IC301	B-2
IC303	B-1
IC1001	B-1
IC4003	A-4

TRANSISTOR		*
Q1	B-1	②
Q2	B-1	②
Q4	B-1	②
Q17	B-1	②
Q18	A-5	②
Q21	A-2	②
Q22	A-2	②
Q24	A-2	②
Q25	A-2	②
Q101	A-3	②
Q102	A-3	②
Q104	B-3	②
Q106	B-3	②
Q111	A-5	②
Q114	A-5	②
Q117	A-4	②
Q118	B-4	⑮
Q203	B-4	②
Q204	B-4	②
Q207	C-5	②
Q208	C-4	②
Q209	C-4	②
Q212	C-3	②
Q213	C-3	②
Q214	A-5	②
Q215	C-4	②
Q300	B-2	②
Q308	B-2	②
Q330	B-2	②
Q331	B-3	②
Q333	B-2	②
Q401	A-3	②
Q402	A-3	②
Q403	A-3	②
Q2412	A-3	②

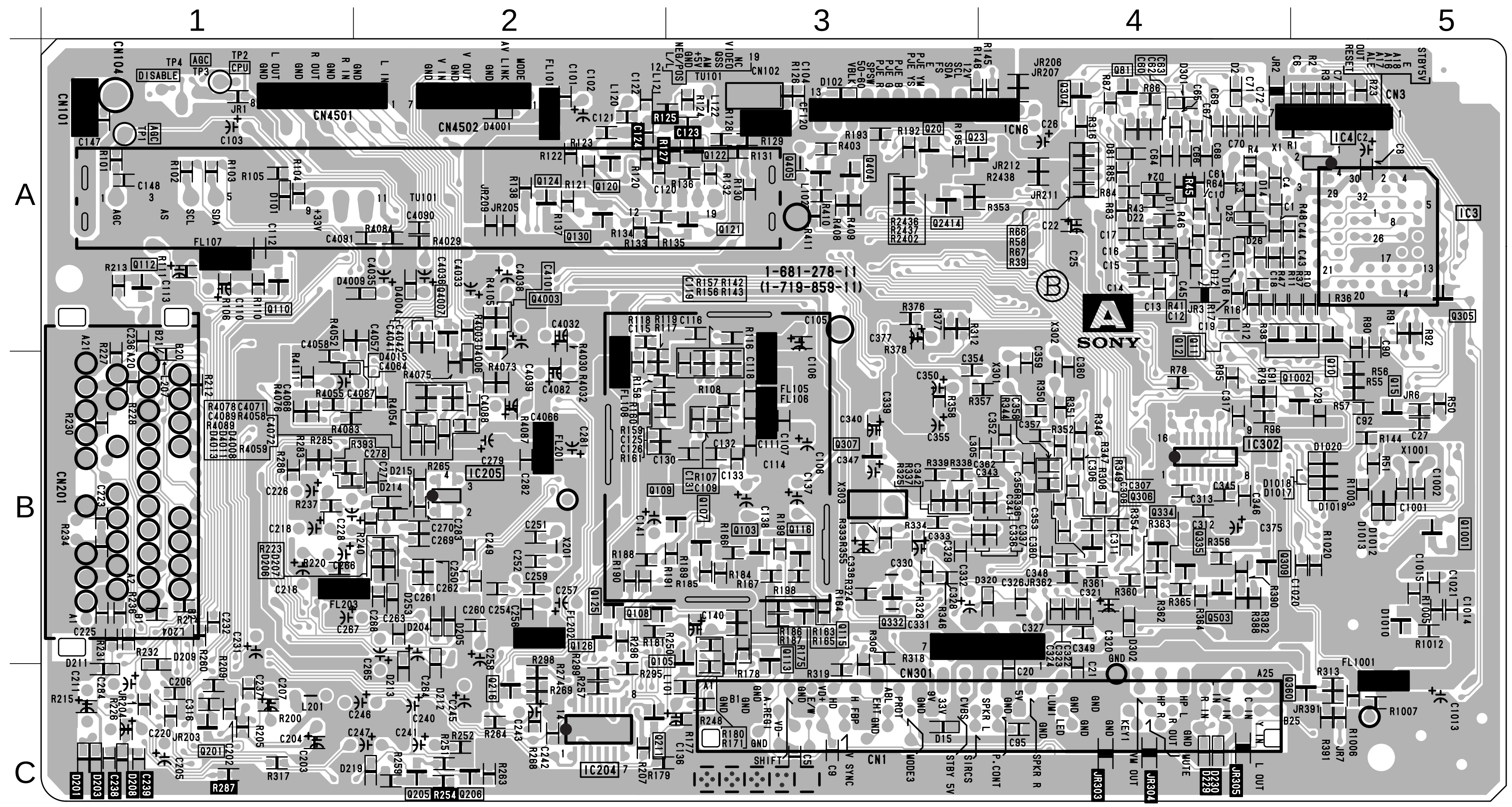
DIODE		*
D202	A-5	③
D210	C-4	③
D216	A-5	③
D217	A-5	③
D218	A-5	③
D220	A-5	③
D221	A-5	③
D223	B-5	③
D224	B-5	③
D225	B-5	③
D226	B-5	③
D251	B-4	③
D303	B-2	③
D304	C-2	③
D370	B-1	③
D401	A-3	③
D402	A-3	③
D4007	B-4	③
D4010	B-4	③

CRYSTAL	
X1	A-1
X201	B-4
X301	A-2
X302	A-2
X303	B-3
X1001	B-1

*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)

A [µ COM, Y/C JUNGLE, TUNER, AUDIO/VIDEO PROCESS]

— A BOARD (Conductor Side) — (41PX1/41PX1K)



• A BOARD SEMICONDUCTOR LOCATION (Conductor Side)

IC	
IC3	A-5
IC4	A-5
IC204	C-2
IC205	B-2
IC302	B-4

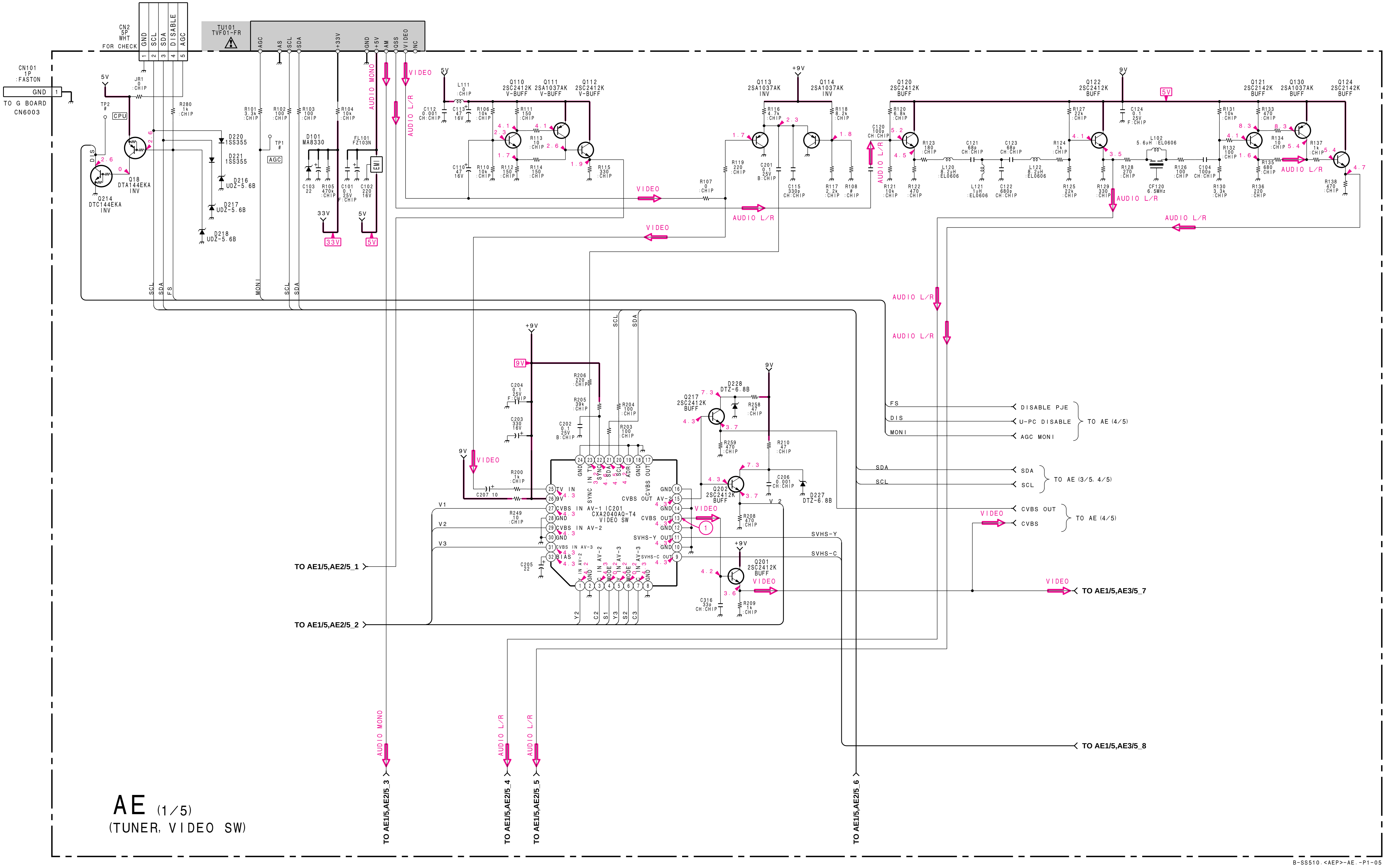
TRANSISTOR		*
Q20	A-3	①
Q23	A-3	①
Q81	A-4	①
Q103	B-3	①
Q105	B-3	①
Q107	B-3	①
Q108	B-2	①
Q109	B-3	①
Q110	A-1	①
Q112	A-1	①
Q113	B-5	①
Q115	B-3	①
Q116	B-3	①
Q120	A-2	①
Q121	A-3	①
Q122	A-3	①
Q124	A-2	①
Q125	B-2	①
Q130	A-2	①
Q201	C-1	①
Q205	C-2	①
Q206	C-2	①
Q211	C-2	①
Q216	C-2	①
Q304	A-4	①
Q305	A-5	①
Q306	B-4	①
Q307	B-3	①
Q309	B-4	①
Q334	B-4	①
Q335	B-4	①
Q404	A-3	①
Q405	A-3	①
Q1001	B-5	①
Q1002	B-5	①
Q2414	A-3	①
Q4003	A-2	①
Q4007	A-2	①

DIODE		*
D2	A-4	③
D11	A-4	③
D12	A-4	③
D16	A-4	③
D101	A-1	③
D102	A-3	③
D201	C-1	③
D203	C-1	③
D204	B-2	③
D205	B-2	③
D206	B-2	③
D207	B-2	③
D208	C-1	③
D209	B-1	③
D211	C-1	③
D212	C-2	③
D213	C-2	③
D214	B-2	③
D215	B-2	③
D320	B-4	③
D1010	B-5	④
D4004	A-2	③
D4006	B-2	③
D4008	B-2	③
D4009	A-2	③
D4011	B-2	③
D4015	B-1	③

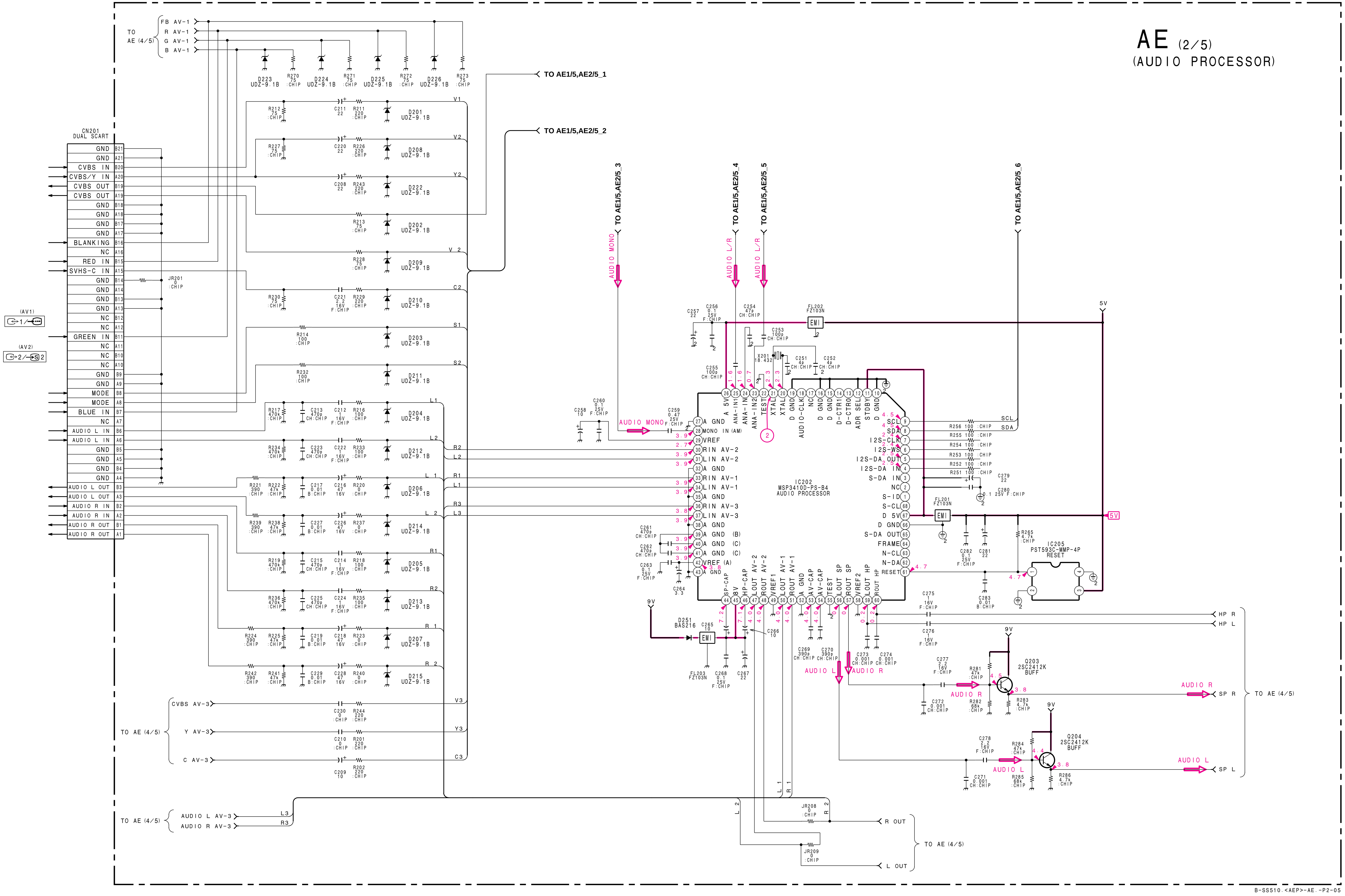
CRYSTAL	
X1	A-4
X201	B-2
X301	B-4
X302	B-4
X303	B-3
X1001	B-5

*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)

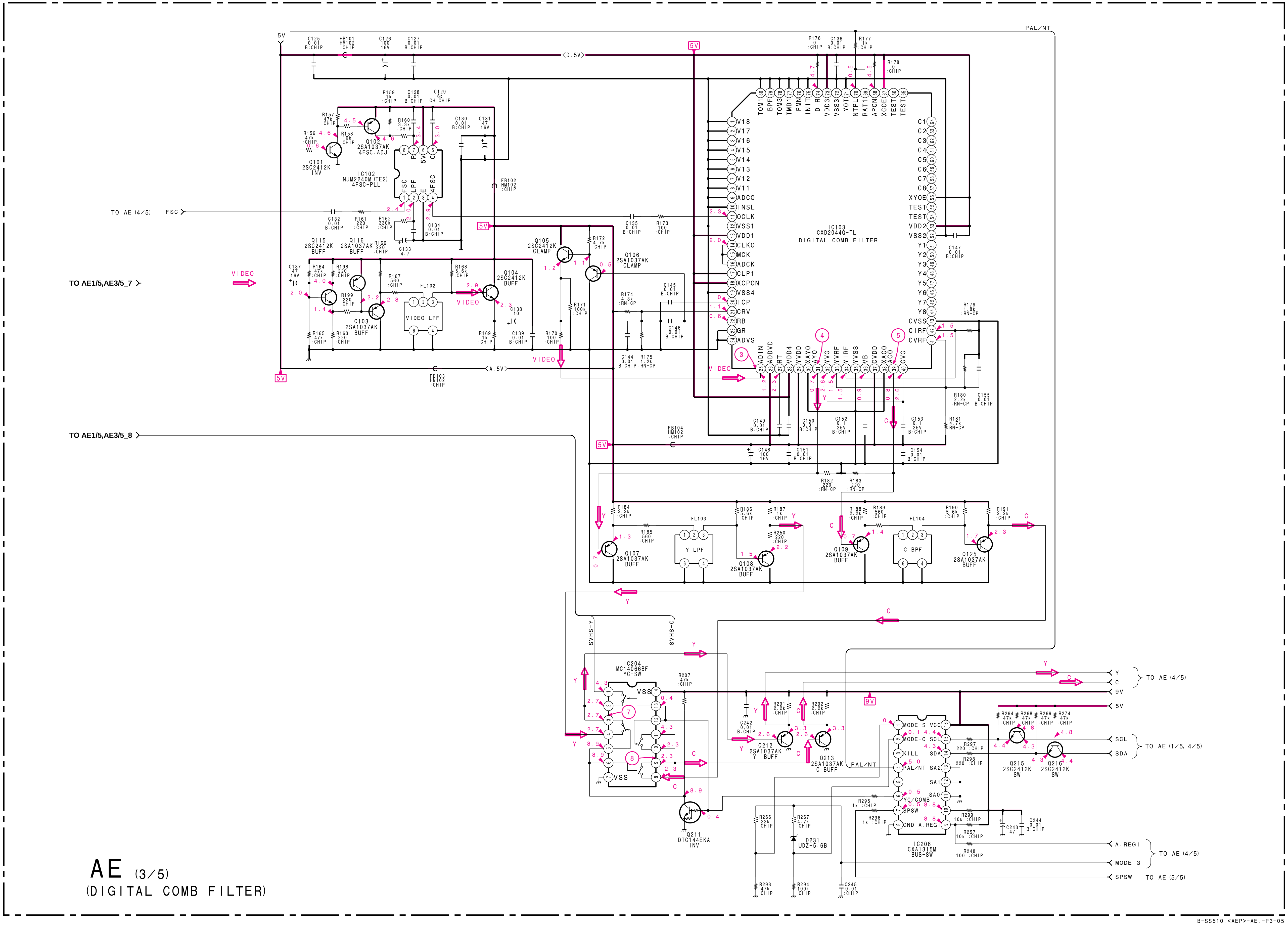
(6) Schematic Diagram of AE (1/5) Board (41PX1R)


AE (1/5)
(TUNER, VIDEO SW)
CN101 1P :FASTON
GND
TO G BOARD CN6003
CN2 5P WHT FOR CHECK
GND SCL SDA DISABLE AGC
TU101 TVF01-FR
AGC AS SCL SDA +33V GND +5V AM OSS VIDEO NC
Q214 DTC144EKA INV
Q18 DTA144EKA INV
D220 1SS355
D221 1SS355
D216 UDZ-5.6B
D217 UDZ-5.6B
D218 UDZ-5.6B
D101 MA8330
FL101 FZ103N
CPU
AGC
33V
5V
AUDIO MONO
AUDIO L/R
VIDEO
Q110 2SC2412K V-BUFF
Q111 2SA1037AK V-BUFF
Q112 2SC2412K V-BUFF
Q113 2SA1037AK INV
Q114 2SA1037AK INV
Q120 2SC2412K BUFF
Q122 2SC2412K BUFF
Q121 2SC2142K BUFF
Q130 2SA1037AK BUFF
Q124 2SC2142K BUFF
CF120 6.5MHz
L102 5.6µH :EL0606
+9V
9V
IC201 CXA2040AQ-T4 VIDEO SW
TV IN
CVBS IN AV-1
CVBS IN AV-2
CVBS IN AV-3
CVBS OUT AV-2
CVBS OUT
SVHS-Y OUT
SVHS-C OUT
BIAS
SYNC IN
Q217 2SC2412K BUFF
Q202 2SC2412K BUFF
Q201 2SC2412K BUFF
D228 DTZ-6.8B
D227 DTZ-6.8B
V1 V2 V3
Y2 C2 S1 Y3 S2 C3
SVHS-Y
SVHS-C
FS
DIS
MONI
DISABLE PJE
U-PC DISABLE
AGC MONI
TO AE (4/5)
SDA
SCL
TO AE (3/5, 4/5)
CVBS OUT
CVBS
TO AE (4/5)
TO AE1/5,AE2/5_1
TO AE1/5,AE2/5_2
TO AE1/5,AE2/5_3
TO AE1/5,AE2/5_4
TO AE1/5,AE2/5_5
TO AE1/5,AE2/5_6
TO AE1/5,AE3/5_7
TO AE1/5,AE3/5_8
B-SS510.<AEP>-AE.-P1-05

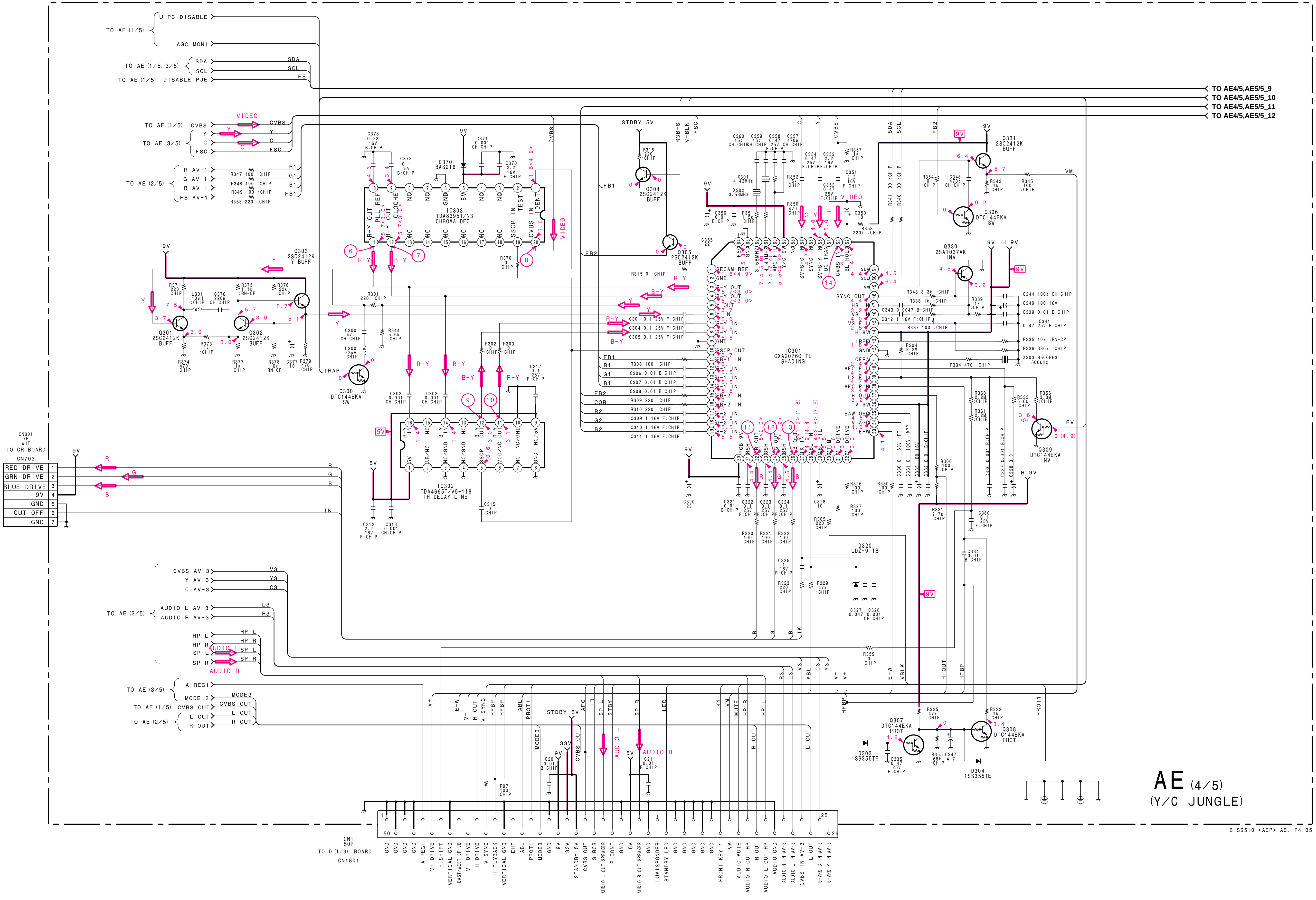
(7) Schematic Diagram of AE (2/5) Board (41PX1R)


AE (2/5)
(AUDIO PROCESSOR)
CN201
DUAL SCART
TO AE (4/5)
FB AV-1
R AV-1
G AV-1
B AV-1
TO AE1/5,AE2/5_1
TO AE1/5,AE2/5_2
TO AE1/5,AE2/5_3
TO AE1/5,AE2/5_4
TO AE1/5,AE2/5_5
TO AE1/5,AE2/5_6
AUDIO MONO
AUDIO L/R
(AV1)
(AV2)
GND
CVBS IN
CVBS/Y IN
CVBS OUT
BLANKING
NC
RED IN
SVHS-C IN
GREEN IN
MODE
BLUE IN
AUDIO L IN
AUDIO L OUT
AUDIO R IN
AUDIO R OUT
JR201
IC202
MSP3410D-PS-B4
AUDIO PROCESSOR
X201
18.432
FL201
FZ103N
FL202
FZ103N
FL203
FZ103N
D251
BAS216
IC205
PST593C-MMP-4P
RESET
Q203
2SC2412K
BUFF
Q204
2SC2412K
BUFF
5V
9V
SCL
SDA
HP R
HP L
SP R
SP L
AUDIO R
AUDIO L
TO AE (4/5)
CVBS AV-3
Y AV-3
C AV-3
AUDIO L AV-3
AUDIO R AV-3
R OUT
L OUT
JR208
JR209
B-SS510.<AEP>-AE.-P2-05

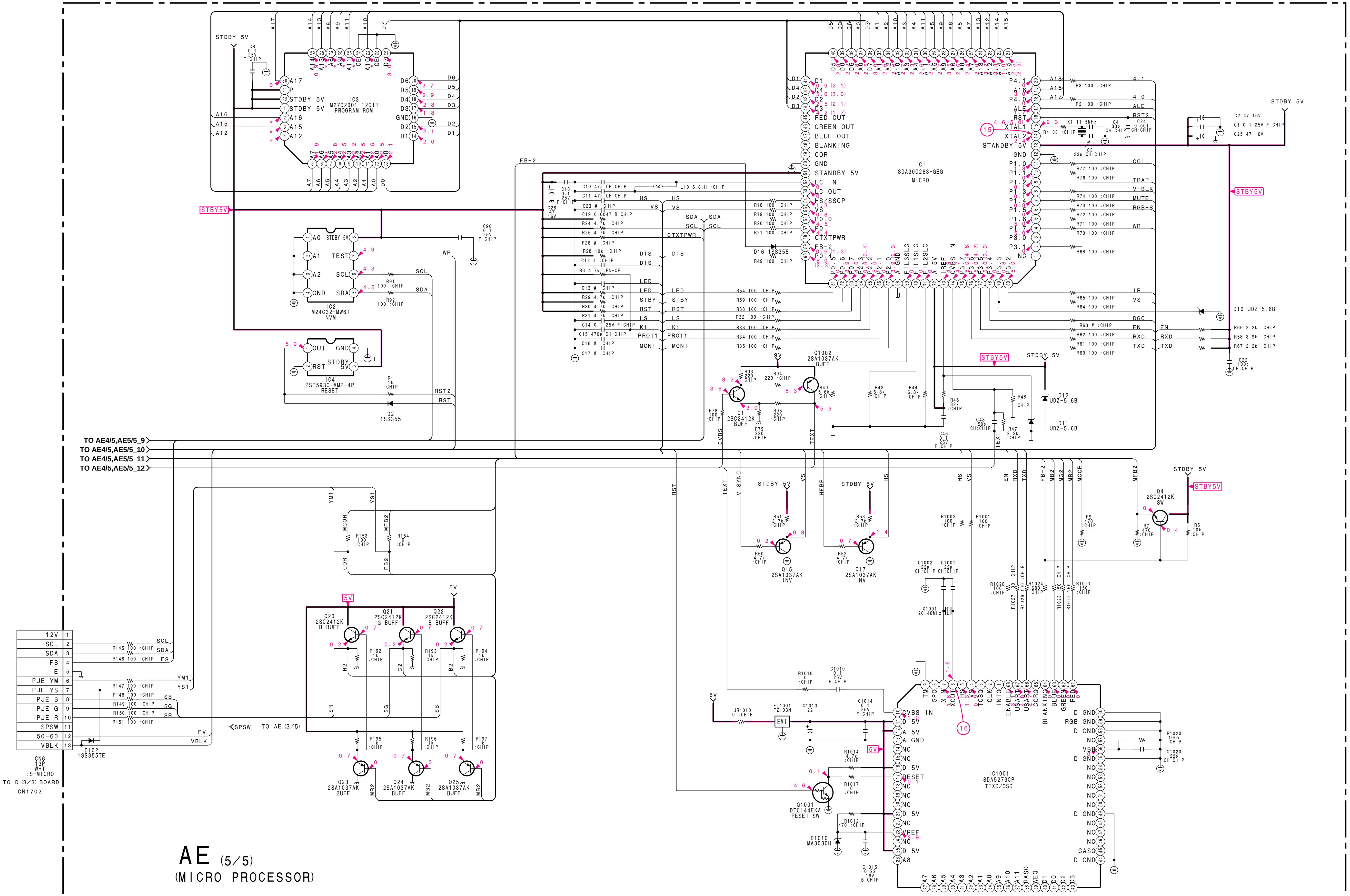
(8) Schematic Diagram of AE (3/5) Board (41PX1R)


AE (3/5)
(DIGITAL COMB FILTER)
TO AE (4/5) FSC
TO AE1/5,AE3/5_7
TO AE1/5,AE3/5_8
VIDEO
5V
D.5V
A.5V
PAL/NT
IC102 NJM2240M (TE2) 4FSC-PLL
Q101 2SC2412K INV
Q102 2SA1037AK 4FSC.ADJ
Q115 2SC2412K BUFF
Q116 2SA1037AK BUFF
Q103 2SA1037AK BUFF
FL102 VIDEO LPF
Q104 2SC2412K BUFF
Q105 2SC2412K CLAMP
Q106 2SA1037AK CLAMP
IC103 CXD2044Q-TL DIGITAL COMB FILTER
FB101 HM102 :CHIP
FB102 HM102 :CHIP
FB103 HM102 :CHIP
FB104 HM102 :CHIP
Q107 2SA1037AK BUFF
FL103 Y LPF
Q108 2SA1037AK BUFF
Q109 2SA1037AK BUFF
FL104 C BPF
Q125 2SA1037AK BUFF
SVHS-Y
SVHS-C
IC204 MC14066BF YC-SW
Q211 DTC144EKA INV
Q212 2SA1037AK Y BUFF
Q213 2SA1037AK C BUFF
D231 UDZ-5.6B
IC206 CXA1315M BUS-SW
Q215 2SC2412K SW
Q216 2SC2412K SW
9V
Y
C
TO AE (4/5)
SCL
SDA
TO AE (1/5, 4/5)
A.REGI
MODE 3
TO AE (4/5)
SPSW
TO AE (5/5)

(9) Schematic Diagram of AE (4/5) Board (41PX1R)

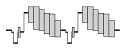
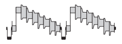

TO AE (1/5)
U-PC DISABLE
AGC MONI
TO AE (1/5, 3/5)
SDA
SCL
TO AE (1/5) DISABLE PJE
FS
TO AE4/5,AE5/5_9
TO AE4/5,AE5/5_10
TO AE4/5,AE5/5_11
TO AE4/5,AE5/5_12
TO AE (1/5) CVBS
TO AE (3/5) Y C FSC
VIDEO
TO AE (2/5)
R AV-1
G AV-1
B AV-1
FB AV-1
IC303
TDA8395T/N3
CHROMA DEC.
D370
BAS216
Q303
2SC2412K
Y BUFF
Q301
2SC2412K
BUFF
Q302
2SC2412K
BUFF
Q300
DTC144EKA
SW
TRAP
IC302
TDA4665T/V5-118
1H DELAY LINE
STDBY 5V
Q304
2SC2412K
BUFF
Q305
2SC2412K
BUFF
X301
4.43MHz
X302
3.58MHz
IC301
CXA2076Q-TL
SHADING
Q331
2SC2412K
BUFF
Q306
DTC144EKA
SW
Q330
2SA1037AK
INV
Q309
DTC144EKA
INV
X303 B500F63
500kHz
D320
UDZ-9.1B
Q307
DTC144EKA
PROT
Q308
DTC144EKA
PROT
D303
1SS355TE
D304
1SS355TE
CN301
7P
WHT
TO CR BOARD
CN703
RED DRIVE
GRN DRIVE
BLUE DRIVE
9V
GND
CUT OFF
GND
TO AE (2/5)
CVBS AV-3
Y AV-3
C AV-3
AUDIO L AV-3
AUDIO R AV-3
HP L
HP R
SP L
SP R
AUDIO L
AUDIO R
TO AE (3/5)
A.REGI
MODE 3
TO AE (1/5) CVBS OUT
TO AE (2/5)
L OUT
R OUT
CN1
50P
TO D (1/3) BOARD
CN1801
GND
A.REGI
V+ DRIVE
H.SHIFT
VERTICAL GND
EAST/WEST DRIVE
V- DRIVE
H DRIVE
V SYNC
H FLYBACK
VERTICAL GND
EHT
ABL
PROT1
MODE3
9V
33V
STANDBY 5V
CVBS OUT
SIRCS
AUDIO L OUT SPEAKER
P.CONT
5V
AUDIO R OUT SPEAKER
LUMISPONDER
STANDBY LED
FRONT KEY 1
VM
AUDIO MUTE
AUDIO R OUT HP
R OUT
AUDIO L OUT HP
AUDIO GND
AUDIO R IN AV-3
AUDIO L IN AV-3
CVBS IN AV-3
L OUT
S-VHS C IN AV-3
S-VHS Y IN AV-3
AE (4/5)
(Y/C JUNGLE)
B-SS510.<AEP>-AE.-P4-05

(10) Schematic Diagram of AE (5/5) Board (41PX1R)

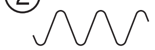

IC3 M27C2001-12C1R PROGRAM ROM
IC2 M24C32-MW6T NVM
IC4 PST593C-MMP-4P RESET
IC1 SDA30C263-GEG MICRO
IC1001 SDA5273CP TEXD/OSD
Q1 2SC2412K BUFF
Q1002 2SA1037AK BUFF
Q15 2SA1037AK INV
Q17 2SA1037AK INV
Q4 2SC2412K SW
Q20 2SC2412K R BUFF
Q21 2SC2412K G BUFF
Q22 2SC2412K B BUFF
Q23 2SA1037AK BUFF
Q24 2SA1037AK BUFF
Q25 2SA1037AK BUFF
Q1001 DTC144EKA RESET SW
D2 1SS355
D16 1SS355
D10 UDZ-5.6B
D12 UDZ-5.6B
D11 UDZ-5.6B
D102 1SS355TE
D1010 MA3030H
X1 11.5MHz
X1001 20.48MHz
FL1001 FZ103N
STDBY 5V
STBY5V
5V
TO AE4/5,AE5/5_9
TO AE4/5,AE5/5_10
TO AE4/5,AE5/5_11
TO AE4/5,AE5/5_12
CN6 13P WHT :S-MICRO TO D (3/3) BOARD CN1702
12V
SCL
SDA
FS
E
PJE YM
PJE YS
PJE B
PJE G
PJE R
SPSW
50-60
VBLK
TO AE (3/5)

AE (5/5)
(MICRO PROCESSOR)

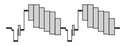
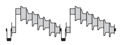
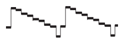
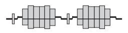
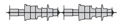
• AE (1/5) BOARD WAVEFORMS (41PX1R)

① PAL/NTSC  1.1 Vp-p (H)	① SECAM  1.2 Vp-p (H)

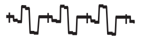
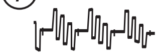
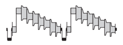
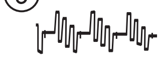
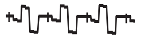
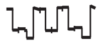
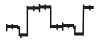
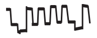
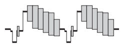
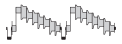
• AE (2/5) BOARD WAVEFORM (41PX1R)

②  1.6 Vp-p (18.432 MHz)

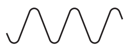
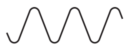
• AE (3/5) BOARD WAVEFORMS (41PX1R)

③ PAL/NTSC  1.7 Vp-p (H)	③ SECAM  1.8 Vp-p (H)	④  1.3 Vp-p (H)	⑤ PAL/NTSC  0.5 Vp-p (H)	⑤ SECAM  0.4 Vp-p (H)

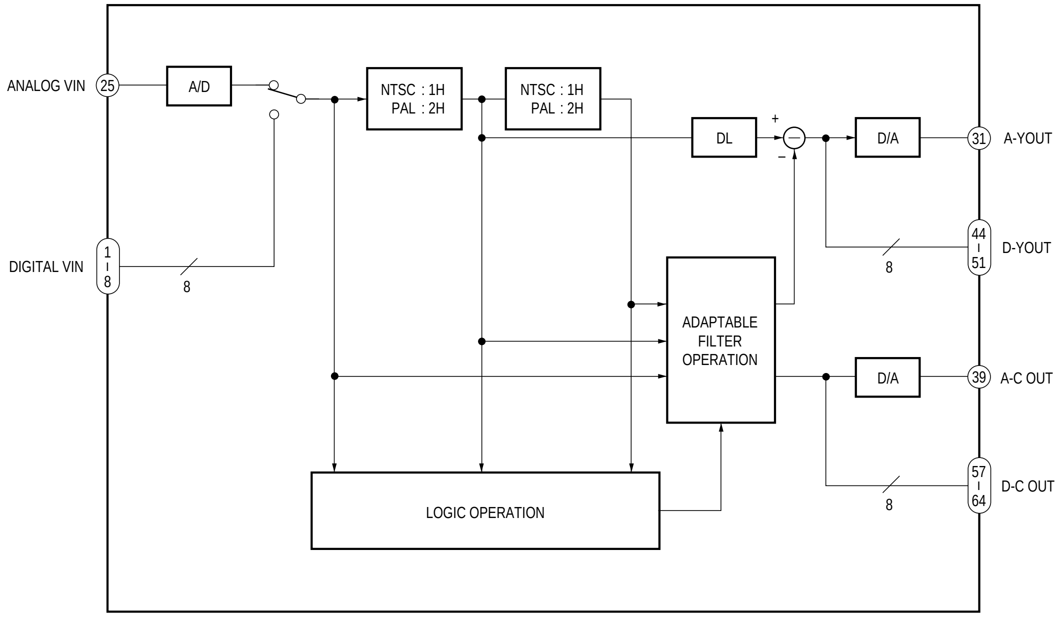
• AE (4/5) BOARD WAVEFORMS (41PX1R)

⑥ SECAM  1.0 Vp-p (H)	⑦ SECAM  1.5 Vp-p (H)	⑧ SECAM  1.2 Vp-p (H)	⑨  1.3 Vp-p (H)	⑩  1.1 Vp-p (H)
⑪  3.6 Vp-p (H)	⑫  3.6 Vp-p (H)	⑬  3.4 Vp-p (H)	⑭ PAL/NTSC  1.1 Vp-p (H)	⑭ SECAM  1.2 Vp-p (H)

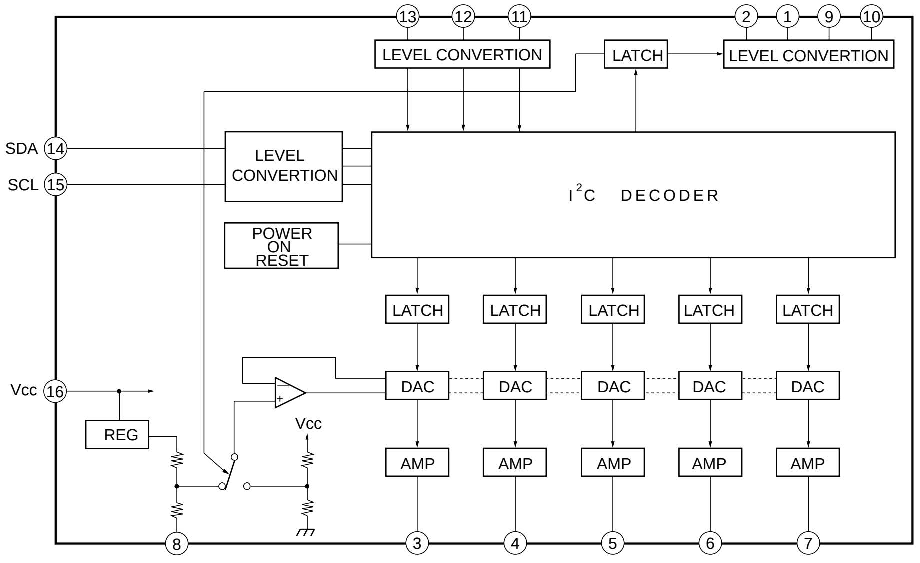
• AE (5/5) BOARD WAVEFORMS (41PX1R)

⑮  3.4 Vp-p (11.5 MHz)	⑯  1.7 Vp-p (20 MHz)

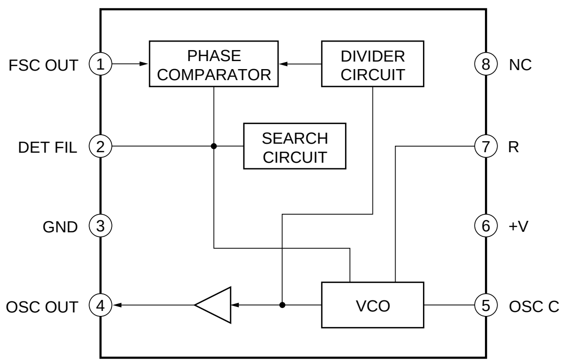
• AE (3/5) BOARD IC103 (41PX1R) CXD2044Q


ANALOG VIN
25
A/D
NTSC : 1H
PAL : 2H
NTSC : 1H
PAL : 2H
DL
+
–
D/A
31
A-YOUT
DIGITAL VIN
1
8
8
44
51
D-YOUT
8
ADAPTABLE FILTER OPERATION
D/A
39
A-C OUT
57
64
D-C OUT
8
LOGIC OPERATION

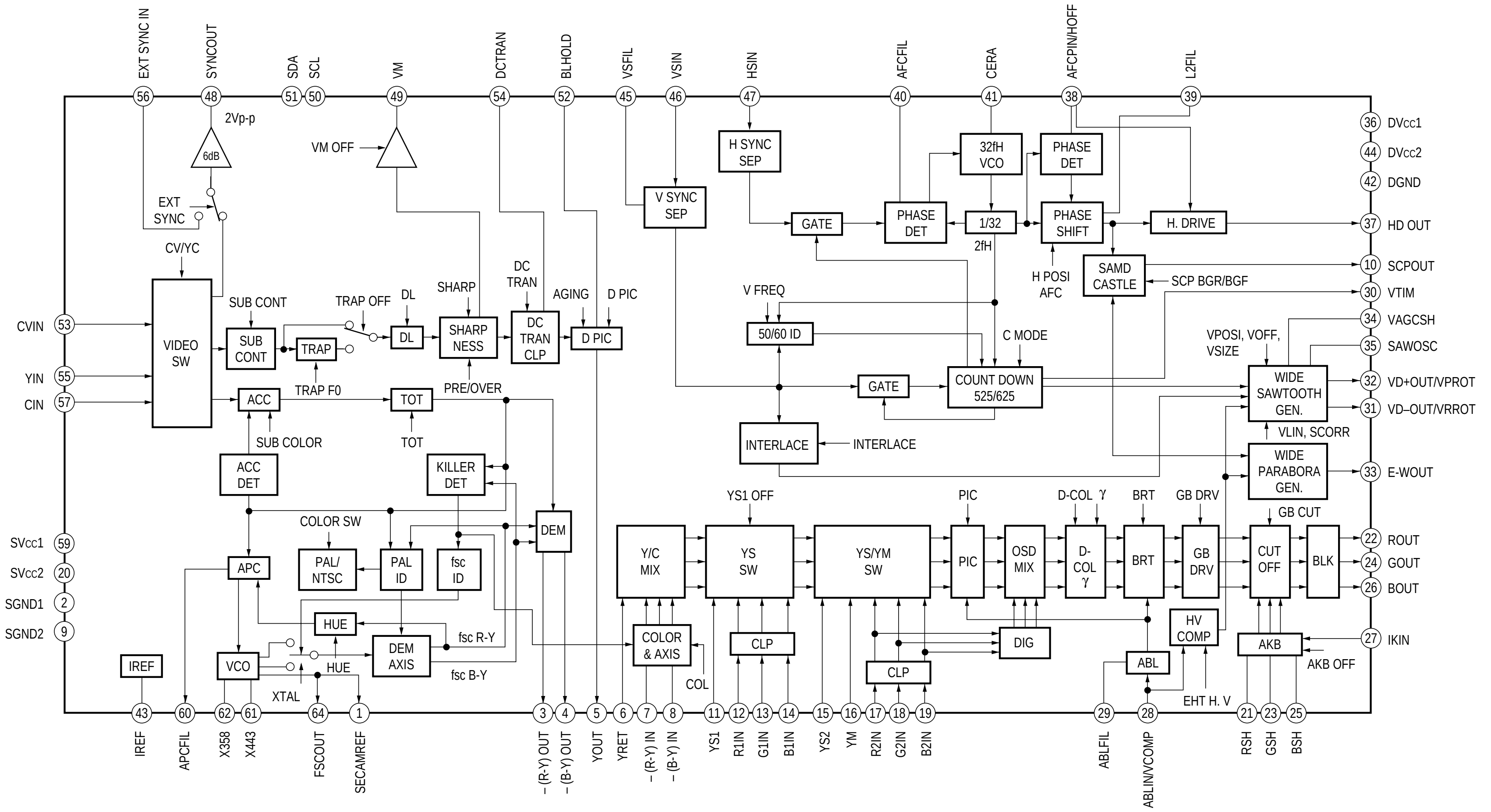
• AE (3/5) BOARD IC206 (41PX1R) CXA1315M


13
12
11
2
1
9
10
LEVEL CONVERTION
LATCH
LEVEL CONVERTION
SDA 14
SCL 15
LEVEL CONVERTION
POWER ON RESET
I²C DECODER
LATCH
LATCH
LATCH
LATCH
LATCH
DAC
DAC
DAC
DAC
DAC
Vcc 16
REG
Vcc
AMP
AMP
AMP
AMP
AMP
8
3
4
5
6
7

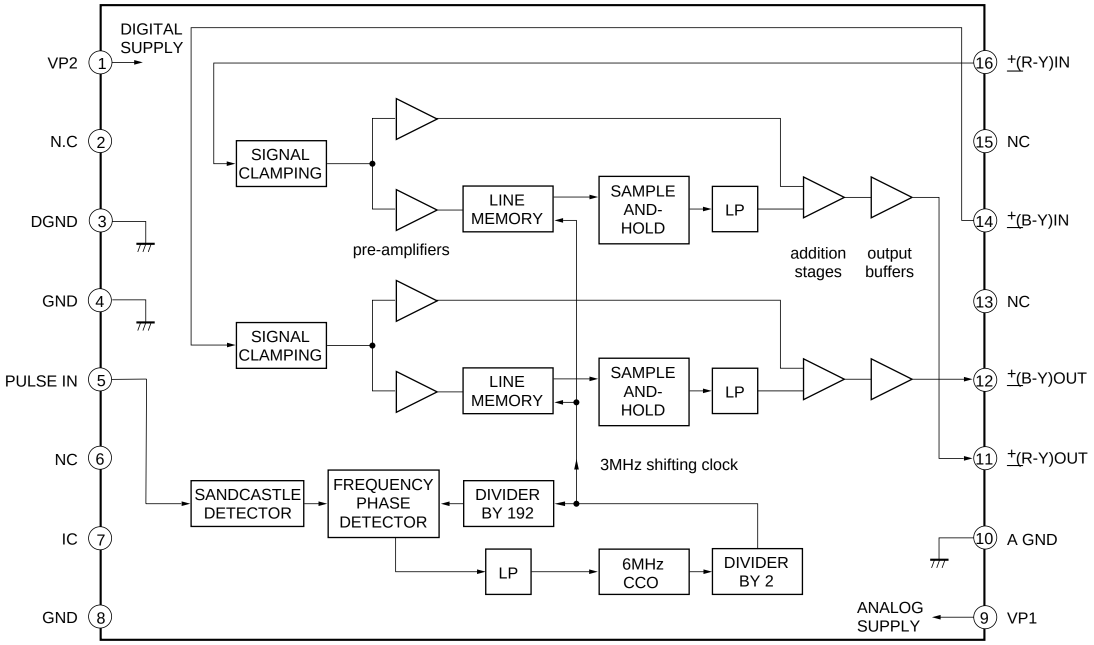
- **AE (3/5) BOARD IC102 (41PX1R)**
NJM2240M


FSC OUT 1
DET FIL 2
GND 3
OSC OUT 4
OSC C 5
+V 6
R 7
NC 8
PHASE COMPARATOR
DIVIDER CIRCUIT
SEARCH CIRCUIT
VCO

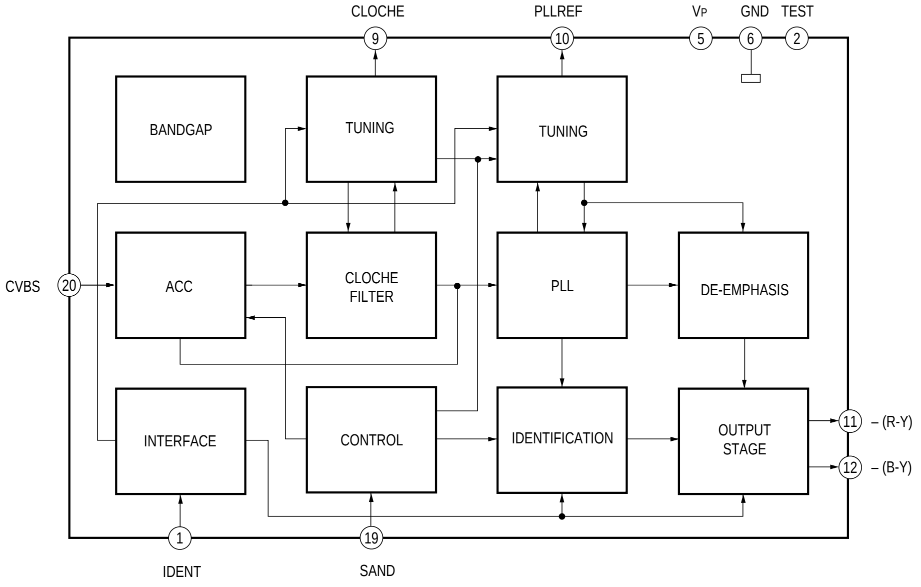
- **AE (4/5) BOARD IC301 (41PX1R)**
CXA2076Q


EXT SYNC IN 56
SYNCOUT 48
SDA 51
SCL 50
VM 49
DCTRAN 54
BLHOLD 52
VSFIL 45
VSIN 46
HSIN 47
AFCFIL 40
CERA 41
AFCPIN/HOFF 38
L2FIL 39
2Vp-p
6dB
VM OFF
EXT SYNC
CV/YC
H SYNC SEP
V SYNC SEP
GATE
PHASE DET
32fH VCO
1/32
2fH
PHASE DET
PHASE SHIFT
H. DRIVE
H POSI AFC
SAMD CASTLE
SCP BGR/BGF
DVcc1 36
DVcc2 44
DGND 42
HD OUT 37
SCPOUT 10
VTIM 30
VAGCSH 34
SAWOSC 35
VD+OUT/VPROT 32
VD–OUT/VRROT 31
E-WOUT 33
ROUT 22
GOUT 24
BOUT 26
IKIN 27
CVIN 53
YIN 55
CIN 57
VIDEO SW
SUB CONT
TRAP OFF
DL
SHARP
DC TRAN
AGING
D PIC
SUB CONT
TRAP
SHARP NESS
DC TRAN CLP
TRAP F0
PRE/OVER
ACC
TOT
SUB COLOR
ACC DET
KILLER DET
COLOR SW
PAL/ NTSC
PAL ID
fsc ID
DEM
APC
HUE
DEM AXIS
fsc R-Y
fsc B-Y
VCO
XTAL
IREF
V FREQ
50/60 ID
GATE
C MODE
COUNT DOWN 525/625
INTERLACE
INTERLACE
VPOSI, VOFF, VSIZE
WIDE SAWTOOTH GEN.
VLIN, SCORR
WIDE PARABORA GEN.
YS1 OFF
PIC
D-COL γ
BRT
GB DRV
GB CUT
Y/C MIX
YS SW
YS/YM SW
PIC
OSD MIX
D-COL γ
BRT
GB DRV
CUT OFF
BLK
COLOR & AXIS
COL
CLP
CLP
DIG
HV COMP
ABL
AKB
AKB OFF
EHT H. V
SVcc1 59
SVcc2 20
SGND1 2
SGND2 9
IREF 43
APCFIL 60
X358 62
X443 61
FSCOUT 64
SECAMREF 1
– (R-Y) OUT 3
– (B-Y) OUT 4
YOUT 5
YRET 6
– (R-Y) IN 7
– (B-Y) IN 8
YS1 11
R1IN 12
G1IN 13
B1IN 14
YS2 15
YM 16
R2IN 17
G2IN 18
B2IN 19
ABLFIL 29
ABLIN/VCOMP 28
RSH 21
GSH 23
BSH 25

- **AE (4/5) BOARD IC302 (41PX1R)**
TDA4665T

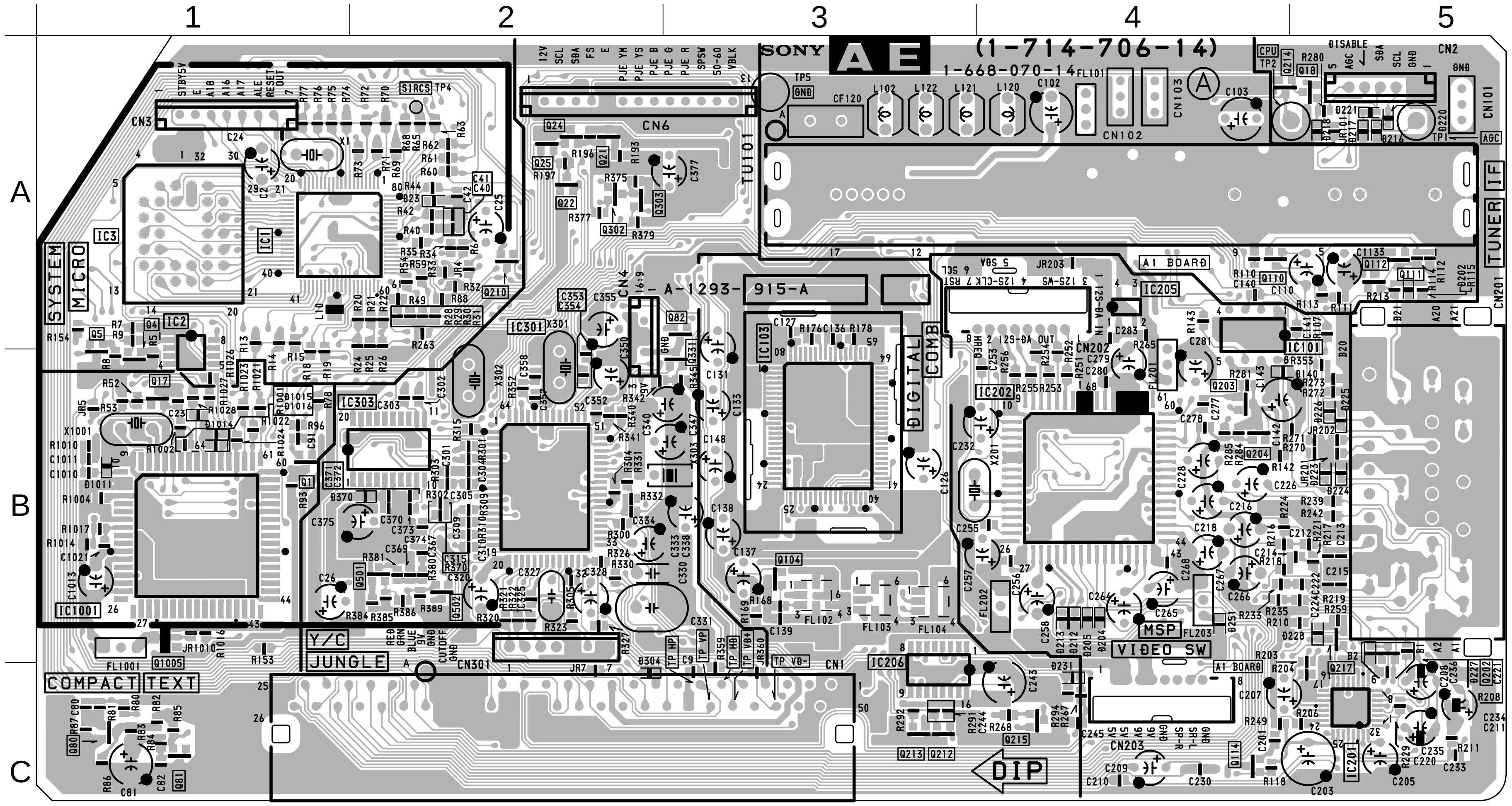

VP2 1
N.C 2
DGND 3
GND 4
PULSE IN 5
NC 6
IC 7
GND 8
VP1 9
A GND 10
+(R-Y)OUT 11
+(B-Y)OUT 12
NC 13
+(B-Y)IN 14
NC 15
+(R-Y)IN 16
DIGITAL SUPPLY
ANALOG SUPPLY
SIGNAL CLAMPING
SIGNAL CLAMPING
LINE MEMORY
LINE MEMORY
SAMPLE AND-HOLD
SAMPLE AND-HOLD
LP
LP
pre-amplifiers
addition stages
output buffers
3MHz shifting clock
SANDCASTLE DETECTOR
FREQUENCY PHASE DETECTOR
DIVIDER BY 192
LP
6MHz CCO
DIVIDER BY 2

- **AE (4/5) BOARD IC303 (41PX1R)**
TDA8395T


CLOCHE 9
PLLREF 10
VP 5
GND 6
TEST 2
CVBS 20
BANDGAP
TUNING
TUNING
ACC
CLOCHE FILTER
PLL
DE-EMPHASIS
INTERFACE
CONTROL
IDENTIFICATION
OUTPUT STAGE
11 – (R-Y)
12 – (B-Y)
1 IDENT
19 SAND

AE [µ COM, Y/C JUNGLE, TUNER, AUDIO/VIDEO PROCESS]

— AE BOARD (Component Side) — (41PX1R)


1
2
3
4
5
A
B
C
SONY
A E
(1-714-706-14)
1-668-070-14
A-1293-915-A
SYSTEM MICRO
COMPACT TEXT
Y/C JUNGLE
DIGITAL COMB
VIDEO SW
MSP
TUNER IF
DIP
A1 BOARD
CN1
CN2
CN3
CN6
CN101
CN102
CN103
CN201
CN202
CN203
CN301
IC1
IC2
IC3
IC103
IC201
IC202
IC205
IC206
IC301
IC303
IC1001
TU101

- **AE BOARD SEMICONDUCTOR LOCATION (Component Side)**

IC	
IC1	A-1
IC2	A-1
IC3	A-1
IC103	B-3
IC201	C-5
IC202	B-4
IC205	A-4
IC206	C-3
IC301	B-2
IC303	B-2
IC1001	B-1

TRANSISTOR		*
Q1	B-1	②
Q4	A-1	②
Q17	B-1	②
Q18	A-5	②
Q21	A-2	②
Q22	A-2	②
Q24	A-2	②
Q25	A-2	②
Q104	B-3	②
Q110	A-4	②
Q111	A-5	②
Q112	A-5	②
Q114	C-4	②
Q202	C-5	②
Q203	B-4	②
Q204	B-4	②
Q212	C-3	②
Q213	C-3	②
Q214	A-4	②
Q215	C-4	②
Q217	C-5	②
Q302	A-2	②
Q303	A-2	②
Q331	B-3	②

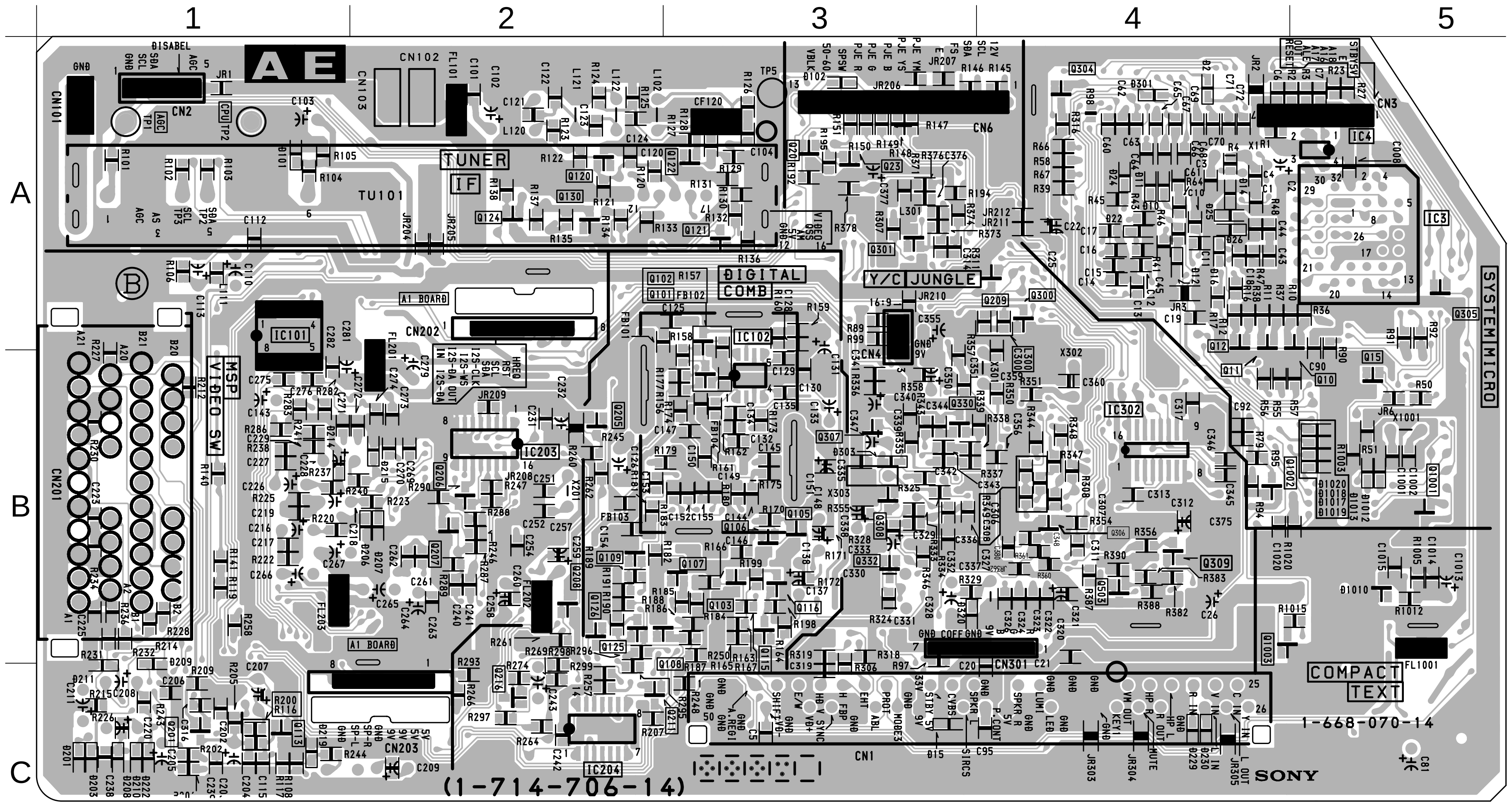
DIODE		*
D202	A-5	③
D204	B-4	③
D205	B-4	③
D212	B-4	③
D213	B-4	③
D216	A-5	③
D217	A-5	③
D218	A-5	③
D220	A-5	③
D221	A-5	③
D223	B-5	③
D224	B-5	③
D225	B-5	③
D226	B-5	③
D227	C-5	③
D228	B-5	③
D231	C-4	③
D251	B-4	③
D304	C-2	③
D370	B-2	③

CRYSTAL	
X1	A-1
X201	B-4
X301	B-2
X302	B-2
X303	B-3
X1001	B-1

***: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)**

AE [µ COM, Y/C JUNGLE, TUNER, AUDIO/VIDEO PROCESS]

— AE BOARD (Conductor Side) — (41PX1R)


1
2
3
4
5
A
B
C
AE
TUNER
IF
TU101
DIGITAL COMB
Y/C JUNGLE
SYSTEM MICRO
MSP VIDEO SW
IC101
IC102
IC203
IC204
IC302
IC3
IC4
CN101
CN102
CN103
CN2
CN3
CN4
CN6
CN201
CN202
CN203
CN301
CN1
COMPACT TEXT
1-668-070-14
(1-714-706-14)
SONY

• AE BOARD SEMICONDUCTOR LOCATION (Conductor Side)

IC	
IC3	A-5
IC4	A-5
IC102	A-3
IC204	C-2
IC302	B-4

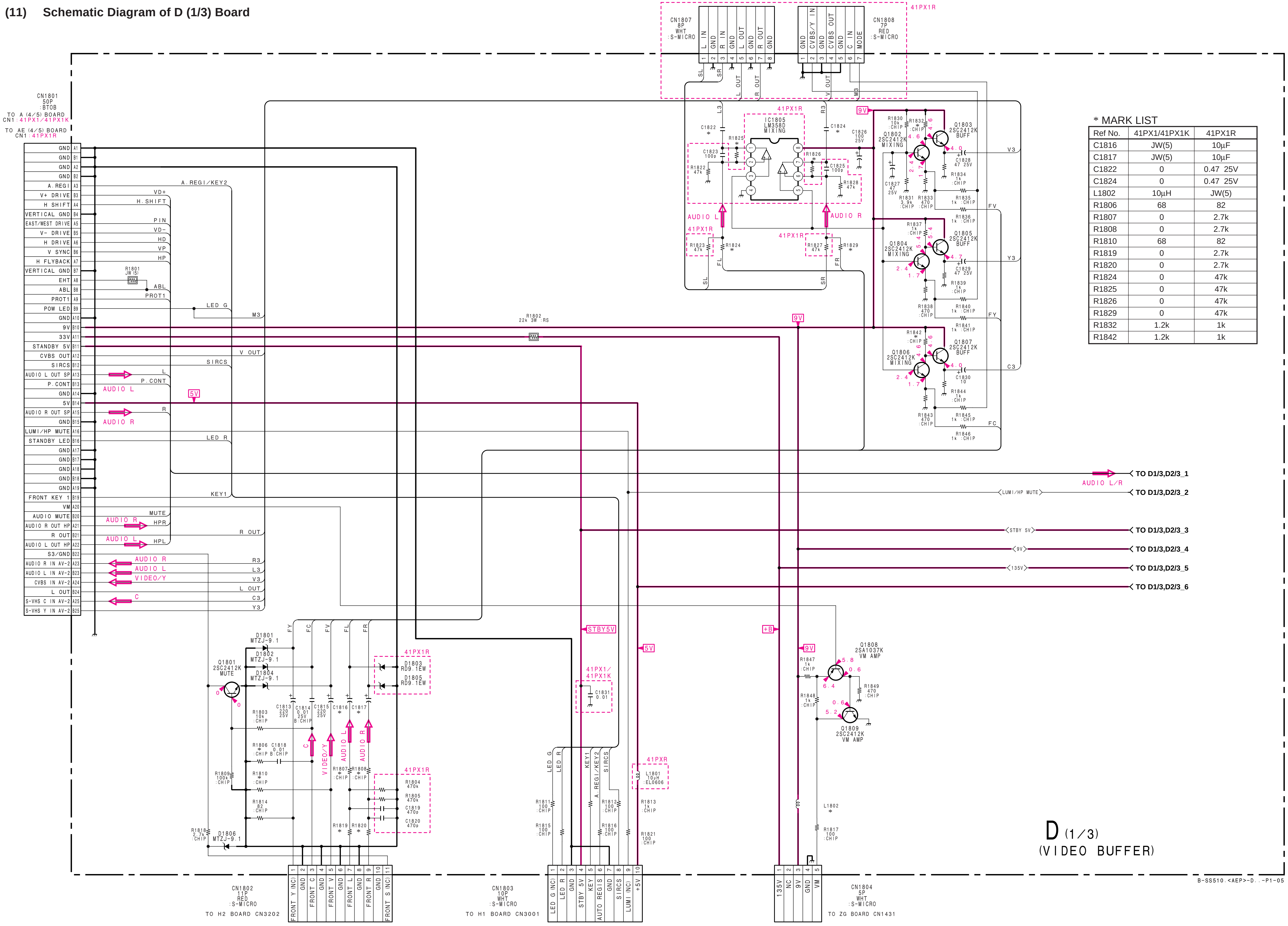
TRANSISTOR		✱
Q15	B-5	①
Q20	A-3	①
Q23	A-3	①
Q101	A-3	①
Q102	B-3	①
Q103	B-3	①
Q105	B-3	①
Q106	B-3	①
Q107	B-3	①
Q108	C-3	①
Q109	B-2	①
Q113	C-1	①
Q115	B-3	①
Q116	B-3	①
Q120	A-2	①
Q121	A-3	①
Q122	A-3	①
Q124	A-2	①
Q125	B-2	①
Q130	A-2	①
Q201	C-1	①
Q211	C-3	①
Q216	C-2	①
Q300	A-4	①
Q301	A-3	①
Q304	A-4	①
Q305	A-5	①
Q306	B-4	①
Q307	B-3	①
Q308	B-3	①
Q309	B-4	①
Q330	B-3	①
Q1001	B-5	①
Q1002	B-4	①

DIODE		✱
D2	A-4	③
D10	A-4	③
D11	A-4	③
D12	A-4	③
D16	A-4	③
D101	A-1	③
D102	A-3	③
D201	C-1	③
D203	C-1	③
D206	B-2	③
D207	B-2	③
D208	C-1	③
D209	C-1	③
D210	C-1	③
D211	C-1	③
D214	B-1	③
D215	B-2	③
D222	C-1	③
D303	B-3	③
D320	B-3	③
D1010	B-5	④

CRYSTAL	
X1	A-4
X201	B-2
X301	B-4
X302	B-4
X303	B-3
X1001	B-5

✱: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)

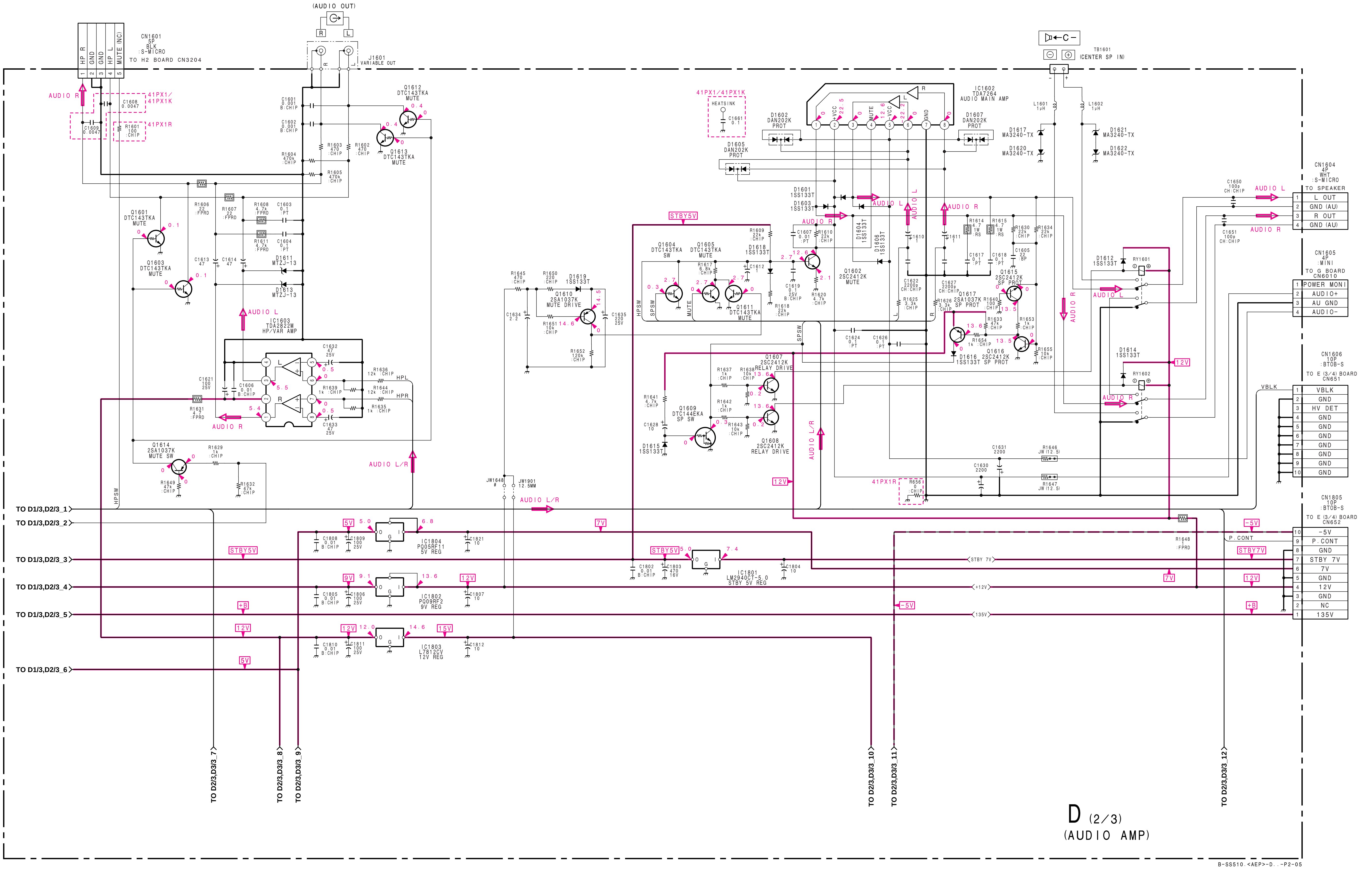
(11) Schematic Diagram of D (1/3) Board


CN1801 50P :BTOB
TO A (4/5) BOARD CN1 : 41PX1/41PX1K
TO AE (4/5) BOARD CN1 : 41PX1R
CN1807 8P WHT :S-MICRO
CN1808 7P RED :S-MICRO
41PX1R
IC1805 LM358D MIXING
Q1802 2SC2412K MIXING
Q1803 2SC2412K BUFF
Q1804 2SC2412K MIXING
Q1805 2SC2412K BUFF
Q1806 2SC2412K MIXING
Q1807 2SC2412K BUFF
Q1801 2SC2412K MUTE
Q1808 2SA1037K VM AMP
Q1809 2SC2412K VM AMP
D1801 MTZJ-9.1
D1802 MTZJ-9.1
D1804 MTZJ-9.1
D1806 MTZJ-9.1
D1803 RD9.1EW
D1805 RD9.1EW
AUDIO L
AUDIO R
VIDEO/Y
C
9V
5V
STBY5V
+B
TO D1/3,D2/3_1
TO D1/3,D2/3_2
TO D1/3,D2/3_3
TO D1/3,D2/3_4
TO D1/3,D2/3_5
TO D1/3,D2/3_6
AUDIO L/R
LUMI/HP MUTE
STBY 5V
9V
135V
CN1802 11P RED :S-MICRO
TO H2 BOARD CN3202
CN1803 10P WHT :S-MICRO
TO H1 BOARD CN3001
CN1804 5P WHT :S-MICRO
TO ZG BOARD CN1431
D (1/3)
(VIDEO BUFFER)
B-SS510.<AEP>-D..-P1-05

＊ MARK LIST

Ref No.	41PX1/41PX1K	41PX1R
C1816	JW(5)	10µF
C1817	JW(5)	10µF
C1822	0	0.47 25V
C1824	0	0.47 25V
L1802	10µH	JW(5)
R1806	68	82
R1807	0	2.7k
R1808	0	2.7k
R1810	68	82
R1819	0	2.7k
R1820	0	2.7k
R1824	0	47k
R1825	0	47k
R1826	0	47k
R1829	0	47k
R1832	1.2k	1k
R1842	1.2k	1k

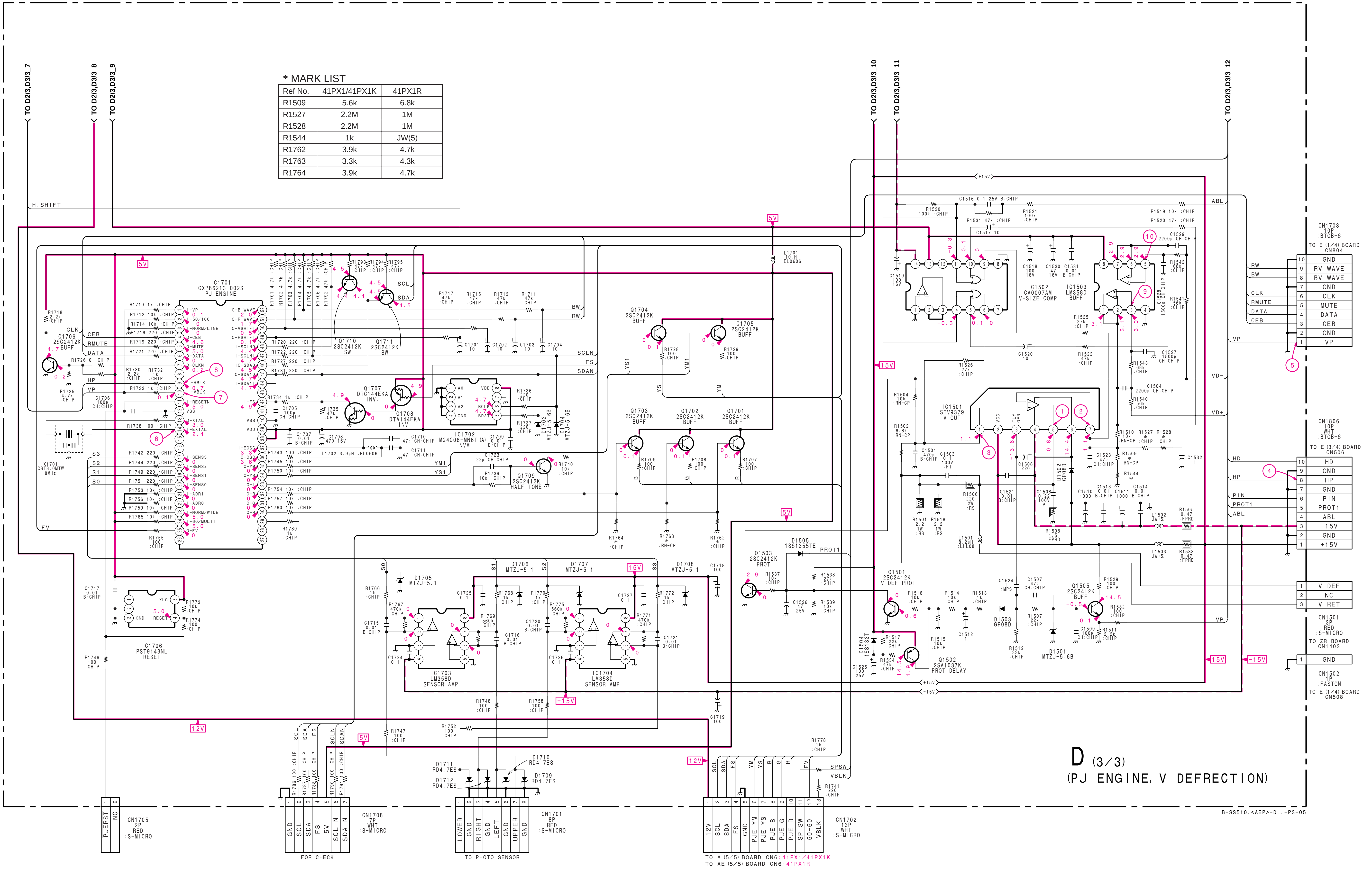
(12) Schematic Diagram of D (2/3) Board


(AUDIO OUT)
R
L
J1601
VARIABLE OUT
CN1601
5P
BLK
:S-MICRO
TO H2 BOARD CN3204
HP R
GND
GND
HP L
MUTE (NC)
AUDIO R
41PX1/
41PX1K
41PX1R
C1606
0.0047
C1609
0.0047
R1601
100
:CHIP
C1601
0.001
B:CHIP
C1602
0.001
B:CHIP
R1603
470
:CHIP
R1602
470
:CHIP
R1604
470k
:CHIP
R1605
470k
:CHIP
Q1612
DTC143TKA
MUTE
Q1613
DTC143TKA
MUTE
Q1601
DTC143TKA
MUTE
Q1603
DTC143TKA
MUTE
R1606
22
:FPRD
R1607
22
:FPRD
R1608
4.7k
:FPRD
C1603
0.1
:PT
R1611
4.7k
:FPRD
C1604
0.1
:PT
C1613
47
C1614
47
D1611
MTZJ-13
D1613
MTZJ-13
AUDIO L
IC1603
TDA2822M
HP/VAR AMP
C1632
47
25V
C1621
100
25V
C1606
0.01
B:CHIP
R1631
4.7
:FPRD
AUDIO R
R1636
12k :CHIP
HPL
R1639
1k :CHIP
R1644
12k :CHIP
HPR
R1635
1k :CHIP
C1633
47
25V
AUDIO L/R
Q1614
2SA1037K
MUTE SW
R1629
1k
:CHIP
R1649
47k
:CHIP
R1632
47k
:CHIP
HPSW
R1645
470
:CHIP
R1650
220
:CHIP
D1619
1SS133T
Q1610
2SA1037K
MUTE DRIVE
C1634
2.2
R1651
10k
:CHIP
C1635
220
25V
R1652
120k
:CHIP
JW1648
JW1901
12.5MM
AUDIO L/R
41PX1/41PX1K
HEATSINK
C1661
0.1
D1602
DAN202K
PROT
D1605
DAN202K
PROT
IC1602
TDA7264
AUDIO MAIN AMP
D1607
DAN202K
PROT
+VCC
MUTE
-VCC
GND
D1601
1SS133T
D1603
1SS133T
STBY5V
Q1604
DTC143TKA
SW
Q1605
DTC143TKA
MUTE
R1617
6.8k
:CHIP
C1612
1
Q1611
DTC143TKA
MUTE
R1609
22k
:CHIP
D1618
1SS133T
C1607
0.01
:PT
R1610
22k
:CHIP
C1619
0.1
25V
B:CHIP
R1618
22k
:CHIP
R1620
4.7k
:CHIP
Q1602
2SC2412K
MUTE
D1604
1SS133T
D1606
1SS133T
C1610
1
C1611
1
AUDIO L
AUDIO R
R1614
4.7
1W
:RS
R1615
4.7
1W
:RS
C1630
22k
:CHIP
R1634
22k
:CHIP
C1617
0.1
:PT
C1618
0.1
:PT
C1605
22
:BP
C1622
2200p
CH:CHIP
R1625
3.3k
:CHIP
C1627
2200p
CH:CHIP
R1626
3.3k
:CHIP
Q1617
2SA1037K
SP PROT
R1640
100
:CHIP
Q1615
2SC2412K
SP PROT
R1633
47k
:CHIP
R1653
1k
:CHIP
R1654
1k :CHIP
Q1616
2SC2412K
SP PROT
D1616
1SS133T
R1655
10k
:CHIP
C1624
0.1
:PT
C1626
0.1
:PT
SPSW
Q1607
2SC2412K
RELAY DRIVE
R1637
1k
:CHIP
R1638
10k
:CHIP
R1641
4.7k
:CHIP
Q1609
DTC144EKA
SP SW
R1642
1k
:CHIP
R1643
10k
:CHIP
Q1608
2SC2412K
RELAY DRIVE
C1628
10
D1615
1SS133T
12V
41PX1R
R1656
0
:CHIP
C1631
2200
C1630
2200
R1646
JW(12.5)
R1647
JW(12.5)
TB1601
(CENTER SP IN)
L1601
1μH
L1602
1μH
D1617
MA3240-TX
D1620
MA3240-TX
D1621
MA3240-TX
D1622
MA3240-TX
C1650
100p
CH:CHIP
C1651
100p
CH:CHIP
D1612
1SS133T
RY1601
D1614
1SS133T
RY1602
CN1604
4P
WHT
:S-MICRO
TO SPEAKER
L OUT
GND (AU)
R OUT
GND (AU)
CN1605
4P
:MINI
TO G BOARD
CN6010
POWER MONI
AUDIO+
AU GND
AUDIO-
CN1606
10P
:BTOB-S
TO E (3/4) BOARD
CN651
VBLK
VBLK
GND
HV DET
GND
GND
GND
GND
GND
GND
GND
CN1805
10P
:BTOB-S
TO E (3/4) BOARD
CN652
-5V
P.CONT
GND
STBY 7V
7V
GND
12V
GND
NC
135V
5V
C1808
0.01
B:CHIP
C1809
100
25V
IC1804
PQ05RF11
5V REG
C1821
10
7V
STBY5V
C1802
0.01
B:CHIP
C1803
470
16V
IC1801
LM2940CT-5.0
STBY 5V REG
C1804
10
R1648
1
:FPRD
STBY7V
9V
C1805
0.01
B:CHIP
C1806
100
25V
IC1802
PQ09RF2
9V REG
C1807
10
12V
+B
15V
C1810
0.01
B:CHIP
C1811
100
25V
IC1803
L7812CV
12V REG
C1812
10
-5V
TO D1/3,D2/3_1
TO D1/3,D2/3_2
TO D1/3,D2/3_3
TO D1/3,D2/3_4
TO D1/3,D2/3_5
TO D1/3,D2/3_6
TO D2/3,D3/3_7
TO D2/3,D3/3_8
TO D2/3,D3/3_9
TO D2/3,D3/3_10
TO D2/3,D3/3_11
TO D2/3,D3/3_12
D (2/3)
(AUDIO AMP)
B-SS510.<AEP>-D..-P2-05

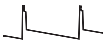
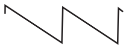
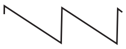
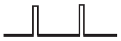
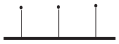
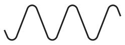
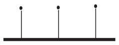
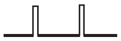
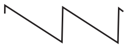
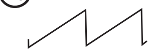
(13) Schematic Diagram of D (3/3) Board

* MARK LIST

Ref No.	41PX1/41PX1K	41PX1R
R1509	5.6k	6.8k
R1527	2.2M	1M
R1528	2.2M	1M
R1544	1k	JW(5)
R1762	3.9k	4.7k
R1763	3.3k	4.3k
R1764	3.9k	4.7k

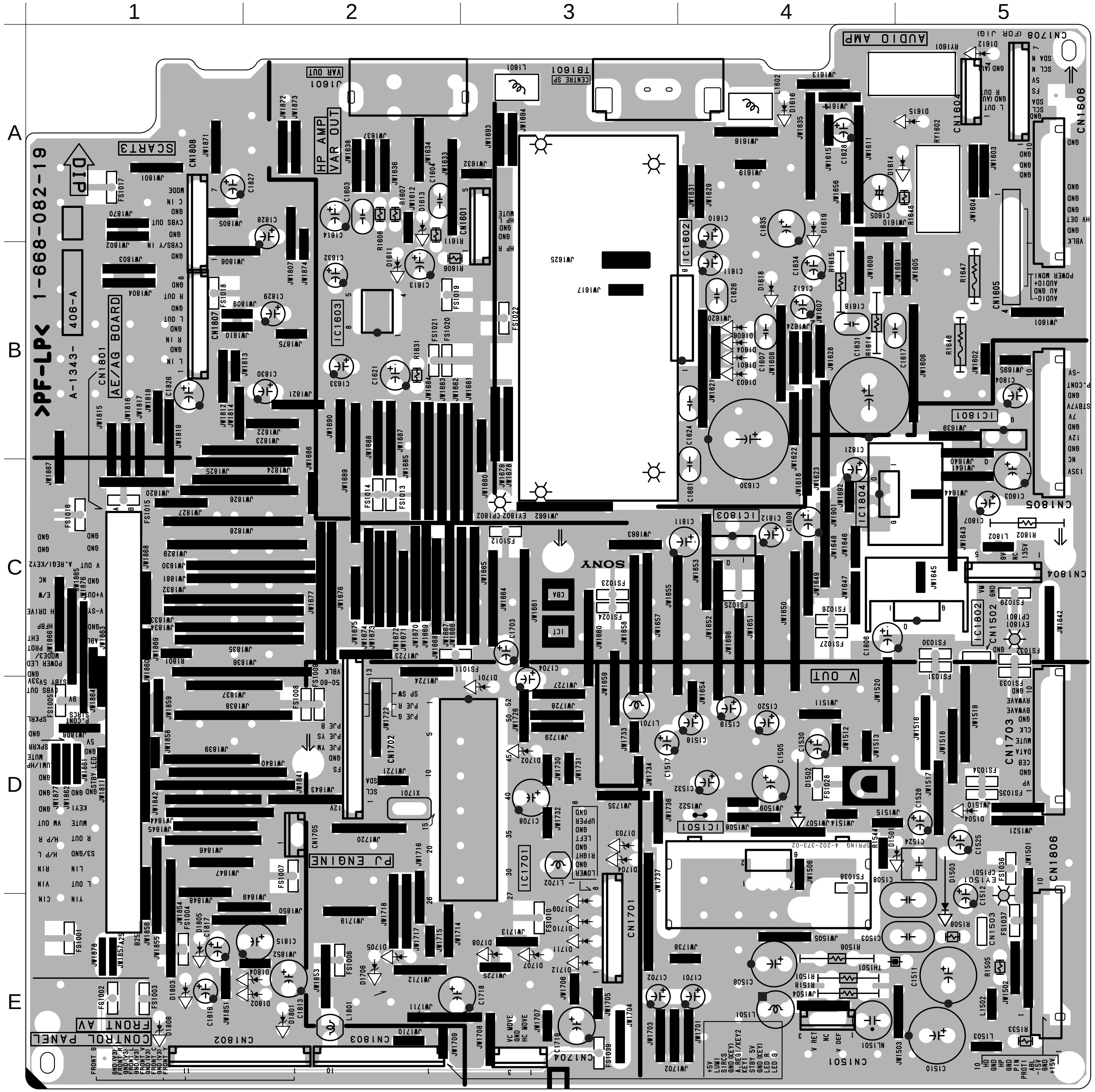

TO D2/3,D3/3_7
TO D2/3,D3/3_8
TO D2/3,D3/3_9
TO D2/3,D3/3_10
TO D2/3,D3/3_11
TO D2/3,D3/3_12
H.SHIFT
IC1701
CXP86213-002S
PJ ENGINE
Q1706
2SC2412K
BUFF
Q1710
2SC2412K
SW
Q1711
2SC2412K
SW
Q1707
DTC144EKA
INV.
Q1708
DTA144EKA
INV
IC1702
M24C08-MN6T (A)
NVM
Q1709
2SC2412K
HALF TONE
X1701
CST8.0MTW
8MHz
Q1704
2SC2412K
BUFF
Q1705
2SC2412K
BUFF
Q1703
2SC2412K
BUFF
Q1702
2SC2412K
BUFF
Q1701
2SC2412K
BUFF
IC1502
CA0007AM
V-SIZE COMP
IC1503
LM358D
BUFF
IC1501
STV9379
V OUT
Q1503
2SC2412K
PROT
D1505
1SS355TE
PROT1
Q1501
2SC2412K
V DEF PROT
Q1505
2SC2412K
BUFF
Q1502
2SA1037K
PROT DELAY
D1503
GP08D
D1501
MTZJ-5.6B
IC1706
PST9143NL
RESET
IC1703
LM358D
SENSOR AMP
IC1704
LM358D
SENSOR AMP
D1705
MTZJ-5.1
D1706
MTZJ-5.1
D1707
MTZJ-5.1
D1708
MTZJ-5.1
D1709
RD4.7ES
D1710
RD4.7ES
D1711
RD4.7ES
D1712
RD4.7ES
L1701
10µH
L1702 3.9µH
L1501
L1502
L1503
5V
12V
15V
-15V
+15V
CN1703
10P
:BTOB-S
TO E (1/4) BOARD
CN804
GND
RV WAVE
BV WAVE
GND
CLK
MUTE
DATA
CEB
GND
VP
CN1806
10P
WHT
:BTOB-S
TO E (3/4) BOARD
CN506
HD
GND
HP
GND
PIN
PROT1
ABL
-15V
GND
+15V
V DEF
NC
V RET
CN1501
3P
RED
:S-MICRO
TO ZR BOARD
CN1403
CN1502
1P
:FASTON
TO E (1/4) BOARD
CN508
CN1705
2P
RED
:S-MICRO
PJERST
NC
CN1708
7P
WHT
:S-MICRO
GND
SCL
SDA
FS
5V
SCL N
SDA N
FOR CHECK
CN1701
8P
RED
:S-MICRO
LOWER
GND
RIGHT
GND
LEFT
GND
UPPER
GND
TO PHOTO SENSOR
CN1702
13P
WHT
:S-MICRO
12V
SCL
SDA
FS
GND
PJE YM
PJE YS
PJE B
PJE G
PJE R
SP SW
50-60
VBLK
TO A (5/5) BOARD CN6: 41PX1/41PX1K
TO AE (5/5) BOARD CN6: 41PX1R
D (3/3)
(PJ ENGINE, V DEFRECTION)
B-SS510.<AEP>-D..-P3-05

- **D (3/3) BOARD WAVEFORMS**

①  57.5 Vp-p (V)	②  0.5 Vp-p (V)	③  0.5 Vp-p (V)	④  4.7 Vp-p (H)	⑤  4.7 Vp-p (V)	⑥  3.6 Vp-p (8 MHz)
⑦  4.7 Vp-p (V)	⑧  4.7 Vp-p (H)	⑨  1.3 Vp-p (V)	⑩  1.3 Vp-p (V)		

D [AUDIO AMP, V DEFRECTION, PJ ENGINE]

— D BOARD (Component Side) —

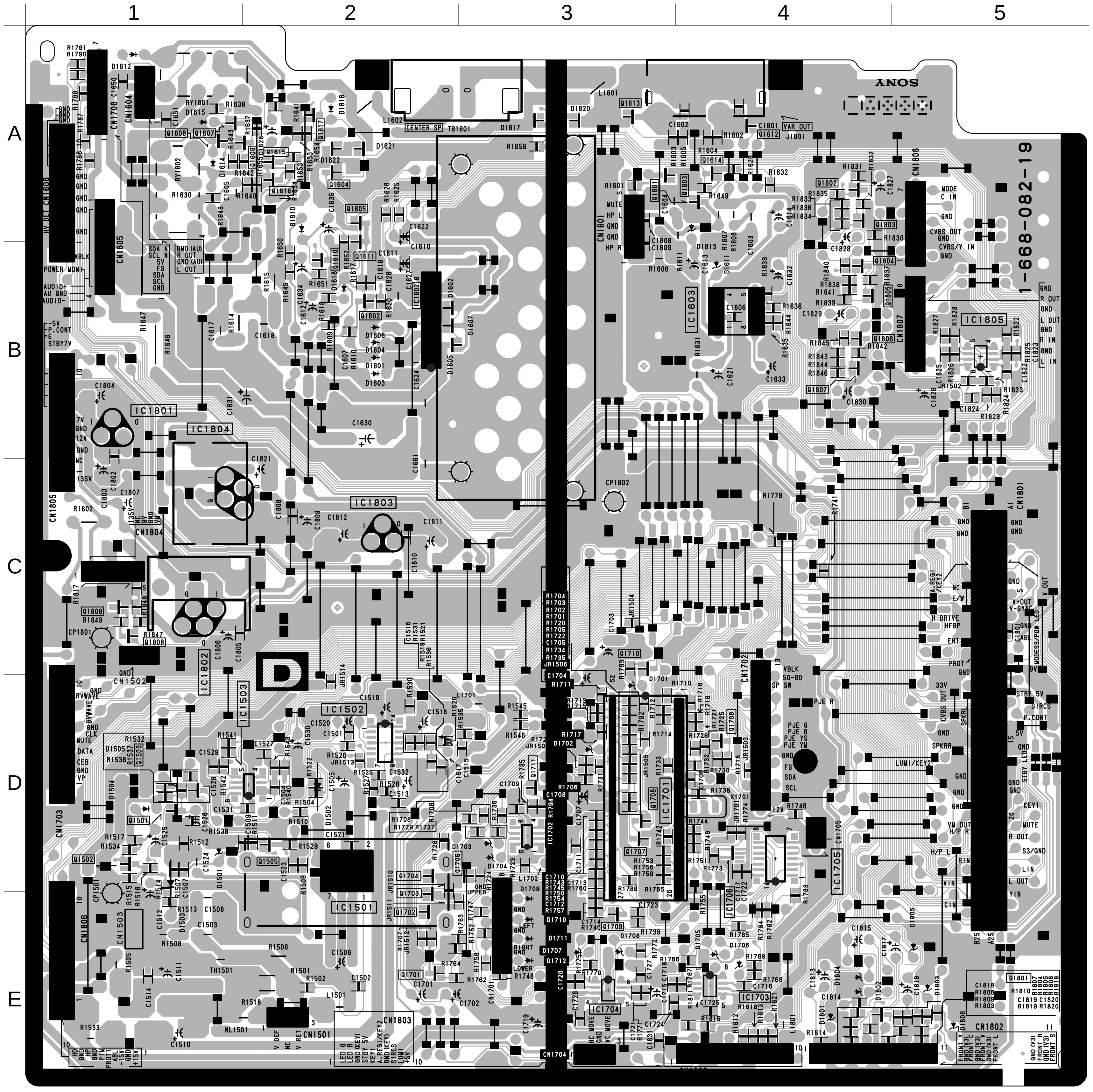

1
2
3
4
5
A
B
C
D
E
1-668-082-19
A-1343-406-A
CN1801 AE/AG BOARD
DIP
SCART3
HP AMP
VAR OUT
J1601
TB1601
AUDIO AMP
CN1708 (FOR J10)
CN1606
CN1805
CN1804
CN1703
CN1806
V OUT
PJ ENGINE
IC1501
IC1602
IC1603
IC1701
IC1801
IC1802
IC1803
IC1804
CN1701
CN1802
CN1803
CN1704
CN1501
FRONT AV
CONTROL PANEL
SONY

- **D BOARD SEMICONDUCTOR LOCATION (Component Side)**

IC	
IC1501	D-4
IC1602	B-4
IC1603	B-2
IC1701	D-3
IC1801	B-5
IC1802	C-5
IC1803	C-4
IC1804	C-4
DIODE	
D1501	D-4
D1502	D-4
D1503	D-5
D1504	D-5
D1601	B-4
D1603	B-4
D1604	B-4
D1606	B-4
D1611	B-2
D1612	A-5
D1613	A-2
D1614	A-5
D1615	A-5
D1616	A-4
D1618	B-4
D1619	A-4
D1703	D-3
D1704	D-3
D1705	E-2
D1706	E-2
D1707	E-3
D1708	E-3
D1709	E-3
D1710	E-3
D1711	E-3
D1712	E-3
D1801	E-2
D1802	E-2
D1803	E-1
D1804	E-2
D1805	E-1
D1806	E-1
CRYSTAL	
X1701	D-2

D [AUDIO AMP, V DEFRECTION, PJ ENGINE]

— D BOARD (Conductor Side) —


1
2
3
4
5
A
B
C
D
E
SONY
1-668-082-19
IC1801
IC1804
IC1803
IC1802
IC1503
IC1502
IC1501
IC1701
IC1702
IC1703
IC1704
IC1705
IC1603
IC1805
CN1801
CN1802
CN1803
CN1805
CN1806
CN1501
CN1502
CN1503
CN1703
CN1704
CN1808
CENTER SP
TB1601
VAR OUT
J1801
D

- **D BOARD SEMICONDUCTOR LOCATION (Conductor Side)**

IC		
IC1501	D-2	
IC1502	D-2	
IC1503	D-2	
IC1602	B-2	
IC1603	B-4	
IC1701	D-3	
IC1702	D-3	
IC1703	E-4	
IC1704	E-3	
IC1706	D-4	
IC1801	B-1	
IC1802	C-1	
IC1803	C-2	
IC1804	C-1	
IC1805	B-5	

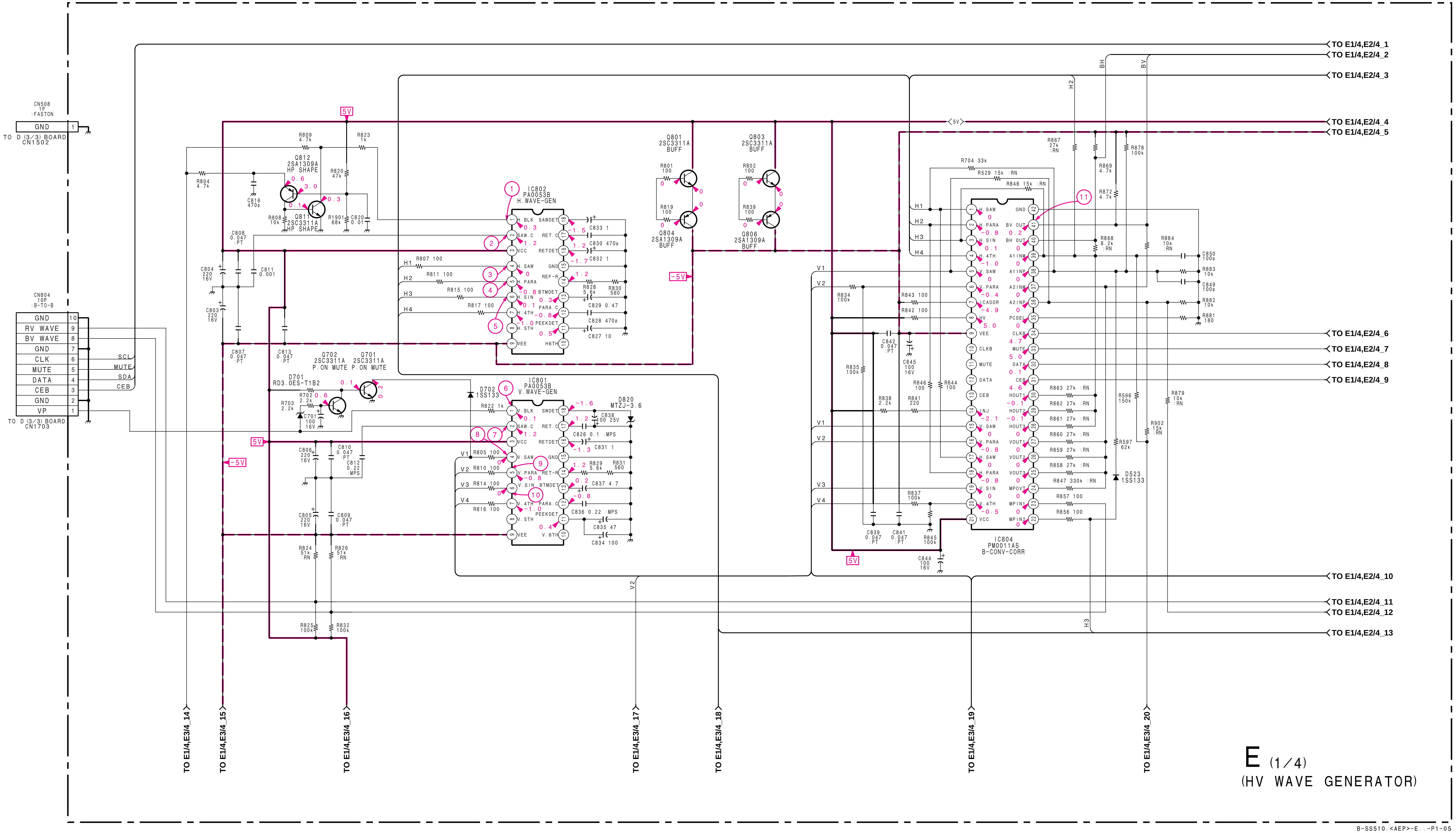
TRANSISTOR		*
Q1501	D-1	①
Q1502	D-1	①
Q1503	D-1	①
Q1505	D-2	①
Q1601	A-4	①
Q1602	B-2	①
Q1603	A-3	①
Q1604	A-2	①
Q1605	A-2	①
Q1607	A-1	①
Q1608	A-1	①
Q1609	A-2	①
Q1610	B-2	①
Q1611	B-2	①
Q1612	A-4	①
Q1613	A-3	①
Q1614	A-4	①
Q1615	A-2	①
Q1616	A-2	①
Q1617	A-2	①
Q1701	E-2	①
Q1702	E-2	①
Q1703	E-2	①
Q1704	D-2	①
Q1705	D-2	①
Q1706	D-4	①
Q1707	D-3	①
Q1708	D-3	①
Q1709	E-3	①
Q1710	C-3	①
Q1711	D-3	①
Q1801	E-4	①
Q1802	A-4	①
Q1803	A-4	①
Q1804	B-4	①
Q1805	B-4	①
Q1806	B-4	①
Q1807	B-4	①
Q1808	C-1	①
Q1809	C-1	①

DIODE		*
D1501	D-1	–
D1502	D-2	–
D1503	D-1	–
D1504	D-1	–
D1505	D-1	③
D1601	B-2	–
D1602	B-2	⑧
D1603	B-2	–
D1604	B-2	–
D1605	B-2	⑧
D1606	B-2	–
D1607	B-2	⑧
D1611	B-4	–
D1612	A-1	–
D1613	A-4	–
D1614	A-1	–
D1615	A-1	–
D1616	A-2	–
D1617	A-3	④
D1618	B-2	–
D1619	A-2	–
D1620	A-3	④
D1621	A-2	④
D1622	A-2	④
D1703	D-3	–
D1704	D-3	–
D1705	E-4	–
D1706	E-4	–
D1707	E-3	–
D1708	E-3	–
D1709	E-3	–
D1710	E-3	–
D1711	E-3	–
D1712	E-3	–
D1801	E-4	–
D1802	E-4	–
D1803	E-5	–
D1804	E-4	–
D1805	E-5	–
D1806	E-5	–

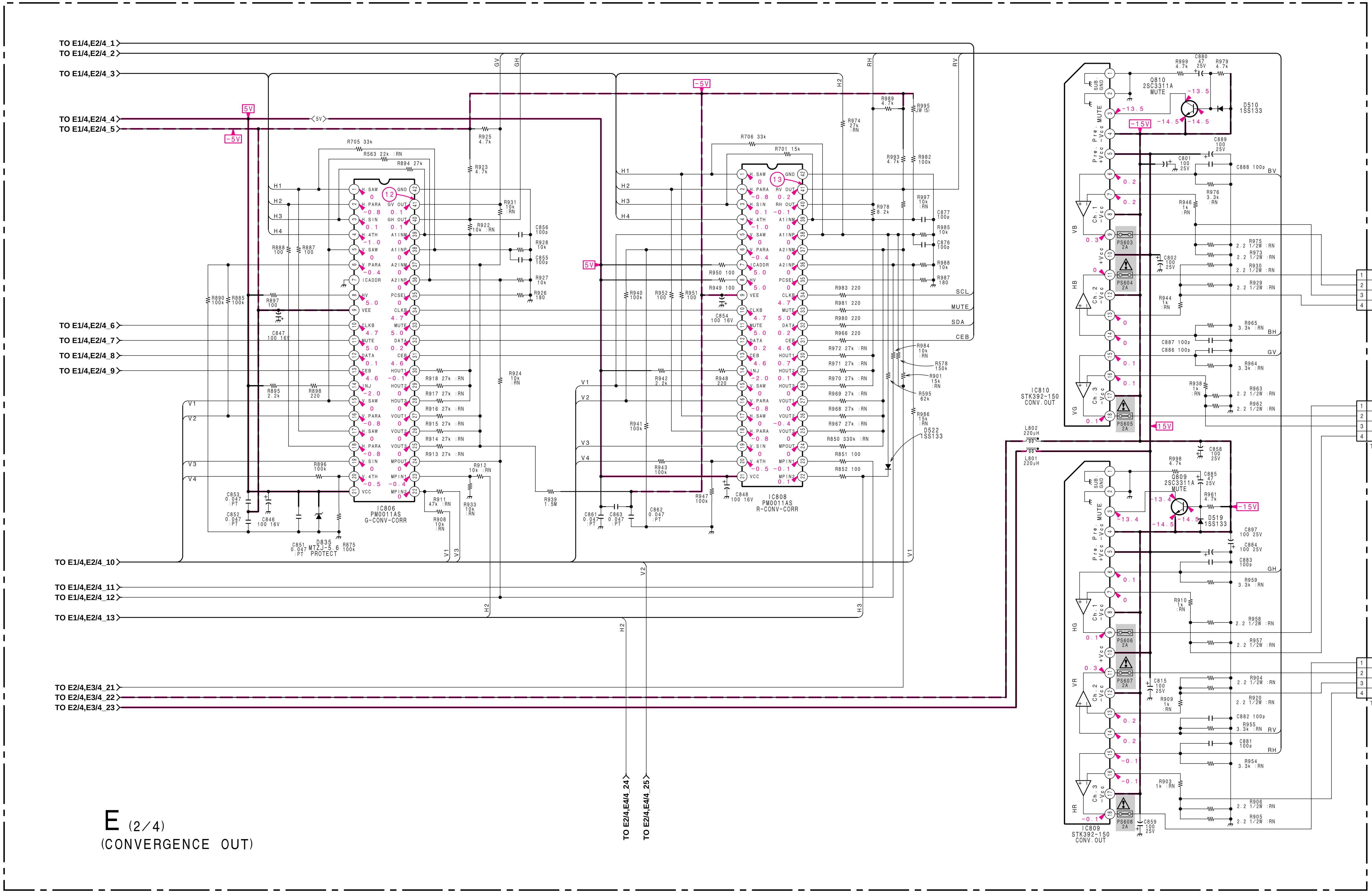
CRYSTAL	
X1701	D-4

***: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)**

(14) Schematic Diagram of E (1/4) Board

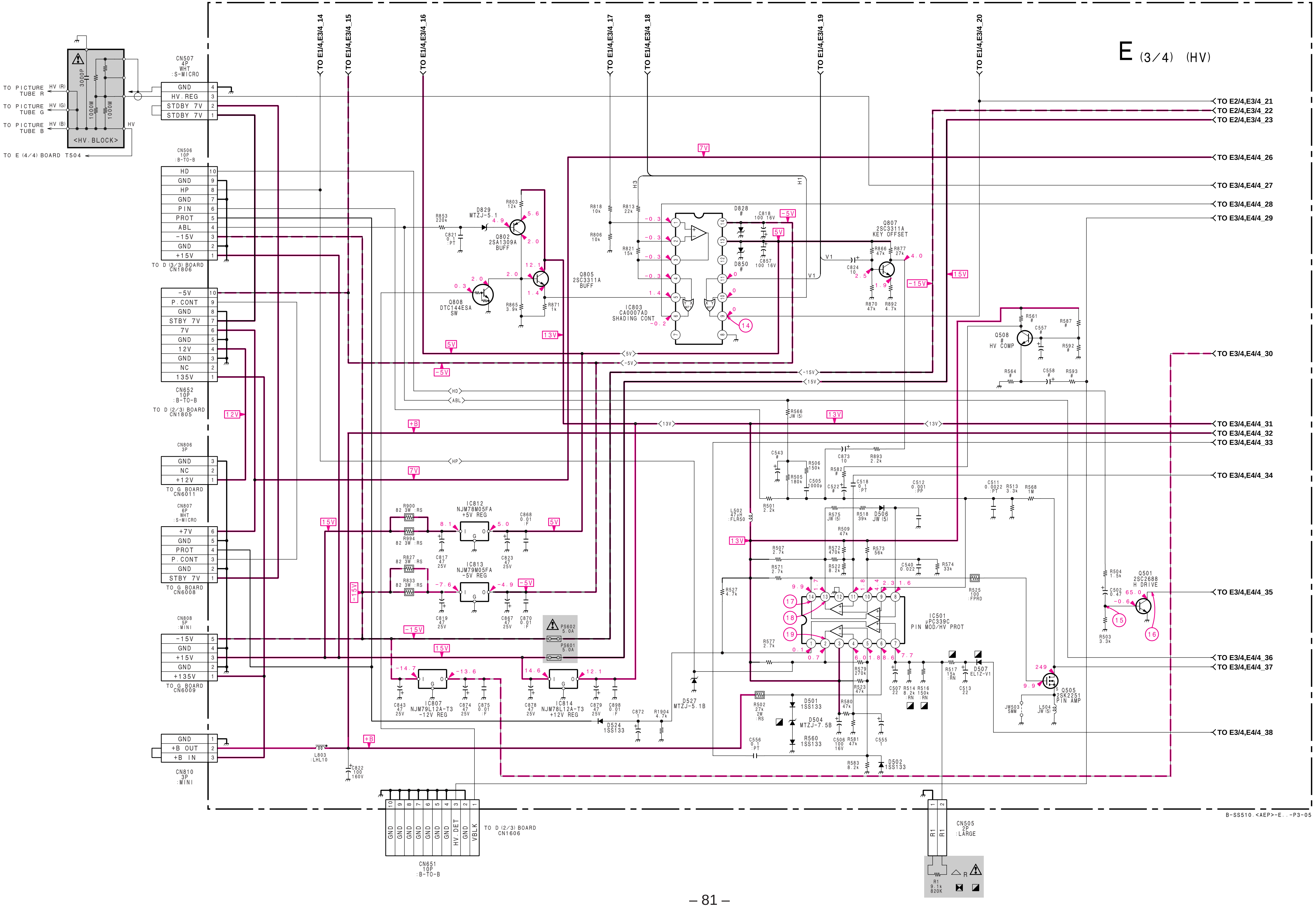

CN508 1P :FASTON
GND
TO D (3/3) BOARD CN1502
CN804 10P :B-TO-B
GND
RV WAVE
BV WAVE
GND
CLK
MUTE
DATA
CEB
GND
VP
TO D (3/3) BOARD CN1703
SCL
MUTE
SDA
CEB
5V
-5V
Q812 2SA1309A HP SHAPE
Q811 2SC3311A HP SHAPE
Q702 2SC3311A P.ON MUTE
Q701 2SC3311A P.ON MUTE
D701 RD3.0ES-T1B2
D702 1SS133
IC802 PA0053B H.WAVE-GEN
IC801 PA0053B V.WAVE-GEN
D820 MTZJ-3.6
Q801 2SC3311A BUFF
Q803 2SC3311A BUFF
Q804 2SA1309A BUFF
Q806 2SA1309A BUFF
IC804 PM0011AS B-CONV-CORR
D523 1SS133
H1
H2
H3
H4
V1
V2
V3
V4
BH
BV
TO E1/4,E2/4_1
TO E1/4,E2/4_2
TO E1/4,E2/4_3
TO E1/4,E2/4_4
TO E1/4,E2/4_5
TO E1/4,E2/4_6
TO E1/4,E2/4_7
TO E1/4,E2/4_8
TO E1/4,E2/4_9
TO E1/4,E2/4_10
TO E1/4,E2/4_11
TO E1/4,E2/4_12
TO E1/4,E2/4_13
TO E1/4,E3/4_14
TO E1/4,E3/4_15
TO E1/4,E3/4_16
TO E1/4,E3/4_17
TO E1/4,E3/4_18
TO E1/4,E3/4_19
TO E1/4,E3/4_20
E (1/4)
(HV WAVE GENERATOR)
B-SS510.<AEP>-E..-P1-05

(15) Schematic Diagram of E (2/4) Board

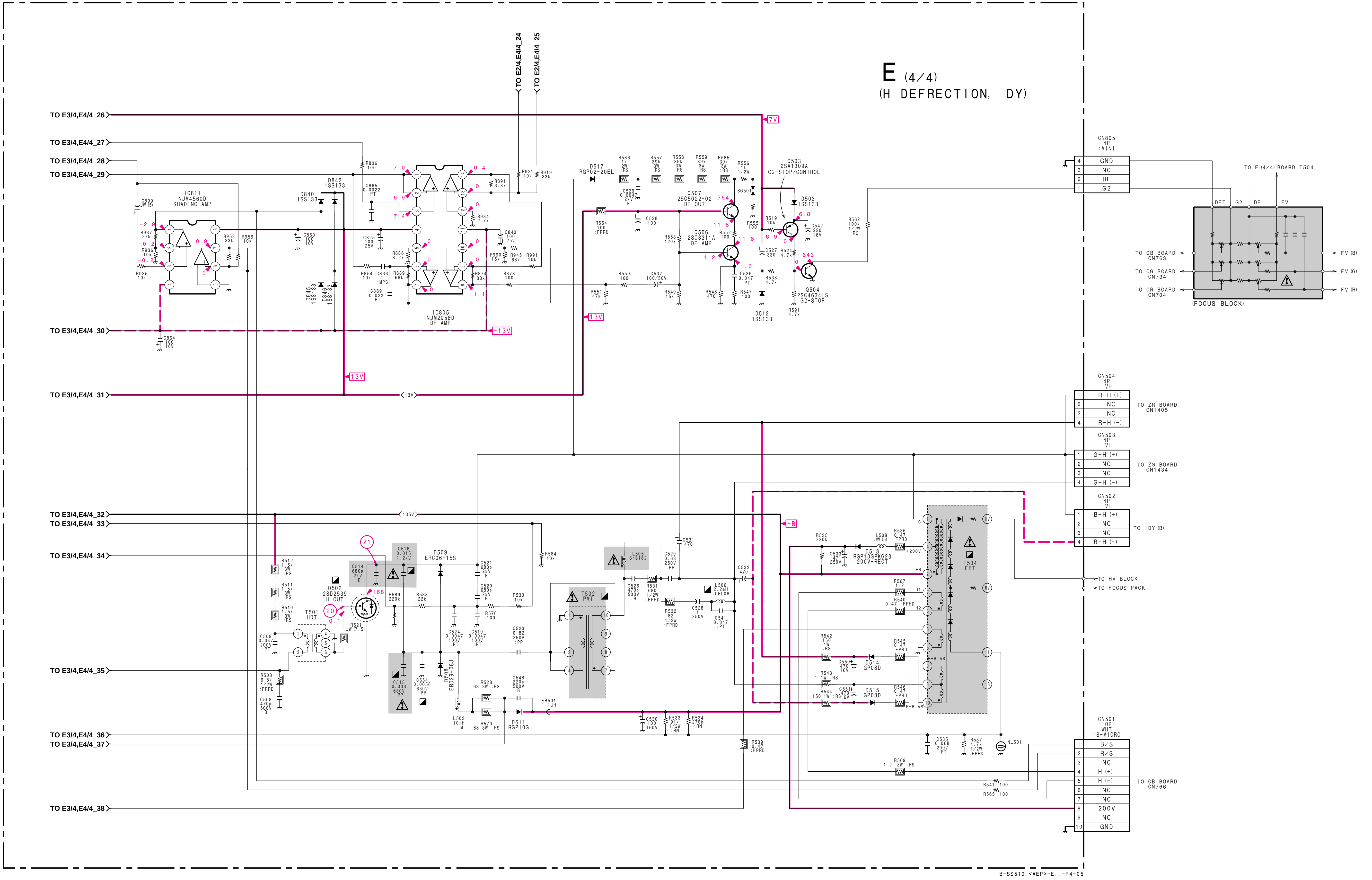

TO E1/4,E2/4_1
TO E1/4,E2/4_2
TO E1/4,E2/4_3
TO E1/4,E2/4_4
TO E1/4,E2/4_5
TO E1/4,E2/4_6
TO E1/4,E2/4_7
TO E1/4,E2/4_8
TO E1/4,E2/4_9
TO E1/4,E2/4_10
TO E1/4,E2/4_11
TO E1/4,E2/4_12
TO E1/4,E2/4_13
TO E2/4,E3/4_21
TO E2/4,E3/4_22
TO E2/4,E3/4_23
TO E2/4,E4/4_24
TO E2/4,E4/4_25
5V
-5V
-15V
IC806
PM0011AS
G-CONV-CORR
IC808
PM0011AS
R-CONV-CORR
IC810
STK392-150
CONV. OUT
IC809
STK392-150
CONV. OUT
Q810
2SC3311A
MUTE
Q809
2SC3311A
MUTE
D510
1SS133
D519
1SS133
D522
1SS133
D835
MTZJ-5.6
PROTECT
L802
220μH
L801
220μH
PS603
PS604
PS605
PS606
PS607
PS608
CN803
4P
BLK
:S-MICRO
HB OUT
VB OUT
VB RET
HB RET
TO ZG BOARD
CN1462
CN802
4P
WHT
:S-MICRO
HG OUT
VG OUT
VG RET
HG RET
TO ZG BOARD
CN1433
CN801
4P
RED
:S-MICRO
HR OUT
VR OUT
VR RET
HR RET
TO ZR BOARD
CN1404
SCL
MUTE
SDA
CEB
E (2/4)
(CONVERGENCE OUT)

B-SS510.<AEP>-E..-P2-05

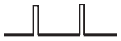
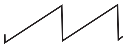
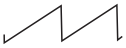
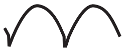
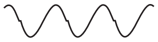
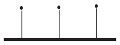
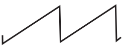
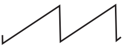
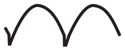
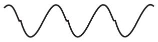
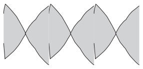
(16) Schematic Diagram of E (3/4) Board


E (3/4) (HV)
TO E1/4,E3/4_14
TO E1/4,E3/4_15
TO E1/4,E3/4_16
TO E1/4,E3/4_17
TO E1/4,E3/4_18
TO E1/4,E3/4_19
TO E1/4,E3/4_20
TO E2/4,E3/4_21
TO E2/4,E3/4_22
TO E2/4,E3/4_23
TO E3/4,E4/4_26
TO E3/4,E4/4_27
TO E3/4,E4/4_28
TO E3/4,E4/4_29
TO E3/4,E4/4_30
TO E3/4,E4/4_31
TO E3/4,E4/4_32
TO E3/4,E4/4_33
TO E3/4,E4/4_34
TO E3/4,E4/4_35
TO E3/4,E4/4_36
TO E3/4,E4/4_37
TO E3/4,E4/4_38
TO PICTURE TUBE R
TO PICTURE TUBE G
TO PICTURE TUBE B
HV (R)
HV (G)
HV (B)
HV
3000P
1000M
1000M
<HV.BLOCK>
TO E (4/4) BOARD T504
CN507 4P WHT :S-MICRO
GND 4
HV.REG 3
STBY 7V 2
STBY 7V 1
CN506 10P :B-TO-B
HD 10
GND 9
HP 8
GND 7
PIN 6
PROT 5
ABL 4
-15V 3
GND 2
+15V 1
TO D (3/3) BOARD CN1806
-5V 10
P.CONT 9
GND 8
STBY 7V 7
7V 6
GND 5
12V 4
GND 3
NC 2
135V 1
CN652 10P :B-TO-B
TO D (2/3) BOARD CN1805
CN806 3P
GND 3
NC 2
+12V 1
TO G BOARD CN6011
CN807 6P WHT :S-MICRO
+7V 6
GND 5
PROT 4
P.CONT 3
GND 2
STBY 7V 1
TO G BOARD CN6008
CN808 5P :MINI
-15V 5
GND 4
+15V 3
GND 2
+135V 1
TO G BOARD CN6009
GND 1
+B OUT 2
+B IN 3
CN810 3P :MINI
L803 :LHL10
C822 100 160V
10 9 8 7 6 5 4 3 2 1
GND GND GND GND GND GND GND HV.DET GND VBLK
TO D (2/3) BOARD CN1606
CN651 10P :B-TO-B
R853 220k
D829 MTZJ-5.1
C821 0.1 :PT
R803 12k
Q802 2SA1309A BUFF
Q808 DTC144ESA SW
R865 3.9k
R871 1k
Q805 2SC3311A BUFF
R818 10k
R806 10k
R813 22k
R821 15k
H3
H1
D828 #
C818 100 16V
C857 100 16V
D850 #
IC803 CA0007AD SHADING CONT
Q807 2SC3311A KEY OFFSET
R866 47k
R877 27k
C824 10
R870 47k
R892 4.7k
V1
Q508 # HV COMP
R561 #
C557 #
R587 #
R592 #
R564 #
C558 #
R593 #
<5V>
<-5V>
<-15V>
<15V>
<HD>
<ABL>
<HP>
<13V>
R566 JW (5)
C543 #
R506 150k
R505 180k
C505 1000p
C873 10
R893 2.2k
R582 #
C522 #
C518 0.1 :PT
C512 0.001 :PP
C511 0.0022 :PT
R513 3.3k
R568 1M
L502 47µH :FLR50
R501 2.2k
R575 JW (5)
R518 39k
D506 JW (5)
R509 47k
R507 2.7k
R571 2.7k
R572 470k
R573 56k
R522 8.2k
C540 0.022
R574 33k
R527 4.7k
R525 100 :FPRO
R504 1.5k
C502 0.47
R503 3.3k
Q501 2SC2688 H DRIVE
IC501 µPC339C PIN MOD/HV PROT
R577 2.7k
R579 270k
R523 47k
C507 22
R514 8.2k :RN
R516 150k :RN
R517 15k :RN
D507 EL1Z-V1
C513 22
Q505 2SK2251 PIN AMP
JW503 5MM
L504 JW (5)
R502 27k 2W :RS
D501 1SS133
D504 MTZJ-7.5B
R580 47k
R560 1SS133
C506 100 16V
R581 47k
C555 1
C556 0.1 :PT
R583 8.2k
D502 1SS133
D527 MTZJ-5.1B
D524 1SS133
C872 1
R1904 4.7k
R900 82 3W :RS
R994 82 3W :RS
IC812 NJM78M05FA +5V REG
C817 47 25V
C868 0.01 :F
C823 47 25V
R827 82 3W :RS
R833 82 3W :RS
IC813 NJM79M05FA -5V REG
C819 47 25V
C867 47 25V
C870 0.01 :F
PS602 5.0A
PS601 5.0A
C843 47 25V
IC807 NJM79L12A-T3 -12V REG
C874 47 25V
C875 0.01 :F
C878 47 25V
IC814 NJM78L12A-T3 +12V REG
C879 47 25V
C898 0.01 :F
CN505 2P :LARGE
R1 R1
R1 9.1k 820K
7V
5V
-5V
13V
15V
-15V
12V
+B
5.6
4.9
2.0
12.1
2.0
0.3
1.4
-0.3
-0.2
0
4.0
2.5
1.9
9.9
0.1
0.7
6.0
1.8
8.6
7.7
2.3
1.6
65.0
-0.6
249
9.9
8.1
5.0
-7.6
-4.9
-14.7
-13.6
14.6
12.1
14
15
16
17
18
19
B-SS510.<AEP>-E..-P3-05

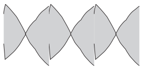
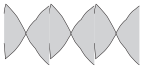
(17) Schematic Diagram of E (4/4) Board


E (4/4)
(H DEFRECTION, DY)
TO E2/4,E4/4_24
TO E2/4,E4/4_25
TO E3/4,E4/4_26
TO E3/4,E4/4_27
TO E3/4,E4/4_28
TO E3/4,E4/4_29
TO E3/4,E4/4_30
TO E3/4,E4/4_31
TO E3/4,E4/4_32
TO E3/4,E4/4_33
TO E3/4,E4/4_34
TO E3/4,E4/4_35
TO E3/4,E4/4_36
TO E3/4,E4/4_37
TO E3/4,E4/4_38
7V
-13V
13V
13V
135V
+B
IC811 NJM4560D SHADING AMP
IC805 NJM2058D DF AMP
D840 1SS133
D842 1SS133
D845 1SS133
D846 1SS133
D517 RGP02-20EL
Q507 2SC5022-02 DF OUT
Q506 2SC3311A DF AMP
Q503 2SA1309A G2-STOP/CONTROL
D503 1SS133
Q504 2SC4634LS G2-STOP
D512 1SS133
SG501
CN805 4P MINI
4 GND
3 NC
2 DF
1 G2
TO E (4/4) BOARD T504
DET G2 DF FV
TO CB BOARD CN763
TO CG BOARD CN734
TO CR BOARD CN704
FV (B)
FV (G)
FV (R)
(FOCUS BLOCK)
CN504 4P VH
1 R-H (+)
2 NC
3 NC
4 R-H (-)
TO ZR BOARD CN1405
CN503 4P VH
1 G-H (+)
2 NC
3 NC
4 G-H (-)
TO ZG BOARD CN1434
CN502 4P VH
1 B-H (+)
2 NC
3 NC
4 B-H (-)
TO HDY (B)
Q502 2SD2539 H OUT
T501 HDT
D509 ERC06-15S
D508 ERD29-08J
T502 PMT
L505 SRS182
L506 2.2mH LHL08
D513 RGP10GPKG23 200V-RECT
T504 FBT
+200V
TO HV BLOCK
TO FOCUS PACK
D514 GP08D
D515 GP08D
R-BIAS
D511 RGP10G
FB501 1.1uH
L503 10uH LM
NL501
CN501 10P WHT S-MICRO
1 B/S
2 R/S
3 NC
4 H (+)
5 H (-)
6 NC
7 NC
8 200V
9 NC
10 GND
TO CB BOARD CN766
B-SS510.<AEP>-E..-P4-05

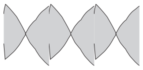
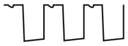
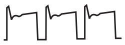
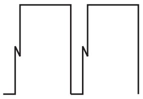
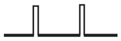
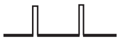
- **E (1/4) BOARD WAVEFORMS**

①  4.7 Vp-p (H)	②  2.5 Vp-p (H)	③  2.5 Vp-p (H)	④  2.4 Vp-p (H)	⑤  2.2 Vp-p (H)	⑥  4.7 Vp-p (V)
⑦  2.5 Vp-p (V)	⑧  2.4 Vp-p (V)	⑨  2.4 Vp-p (V)	⑩  2.3 Vp-p (V)	⑪  2.3 Vp-p (V)	

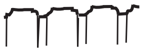
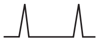
- **E (2/4) BOARD WAVEFORMS**

⑫  1.6 Vp-p (V)	⑬  2.3 Vp-p (V)

- **E (3/4) BOARD WAVEFORMS**

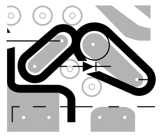
⑭  1.4 Vp-p (V)	⑮  2.5 Vp-p (H)	⑯  89.5 Vp-p (H)	⑰  12.4 Vp-p (H)	⑱  11.3 Vp-p (H)	⑲  4.7 Vp-p (H)

- **E (4/4) BOARD WAVEFORMS**

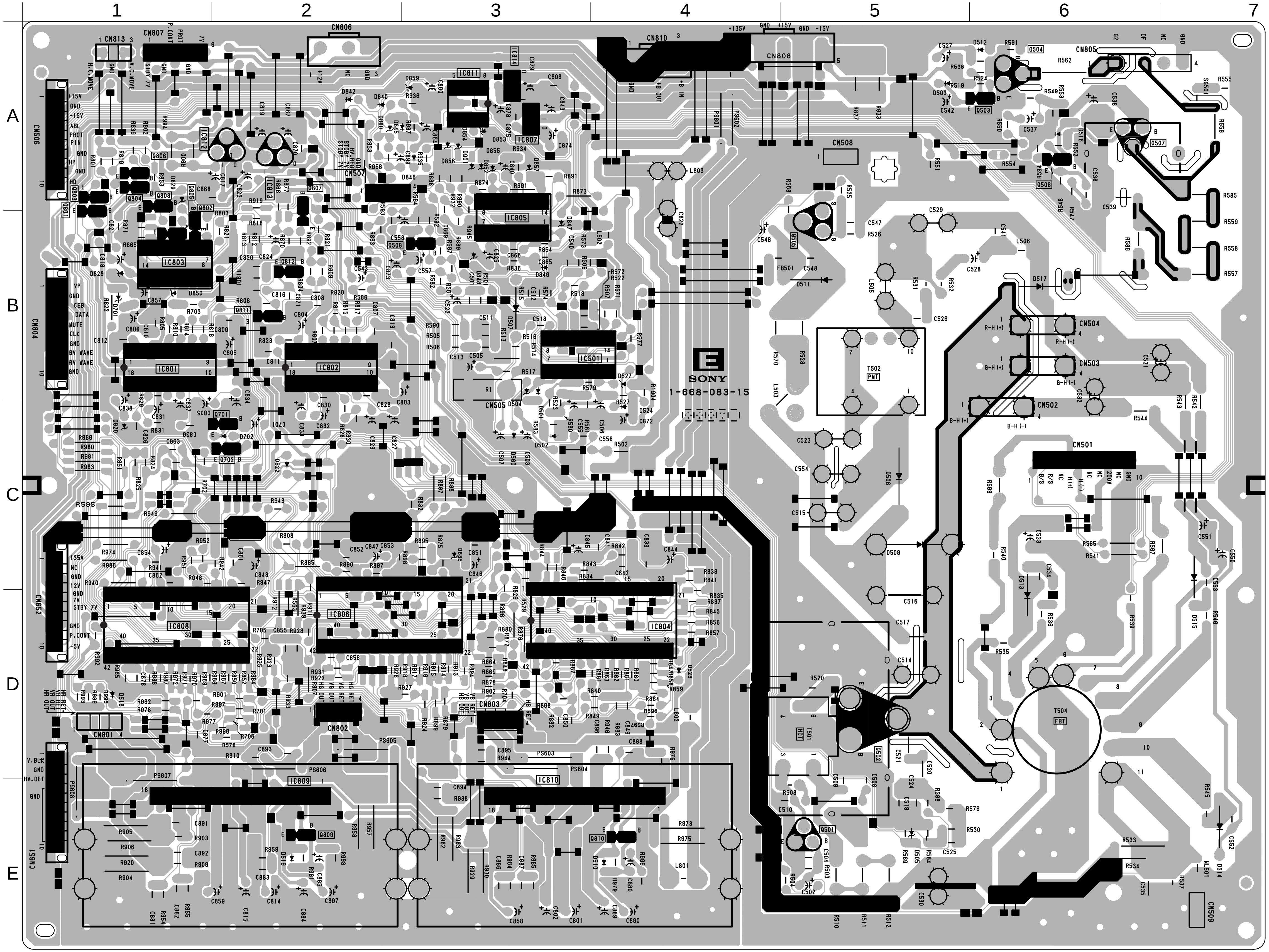
⑳  10.9 Vp-p (H)	㉑  1100 Vp-p (H)

E [H DEFRECTION, HV, DY DRIVE]

— E BOARD —



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.


1
2
3
4
5
6
7
A
B
C
D
E
SONY
E
1-668-083-15
CN801
CN802
CN803
CN804
CN805
CN806
CN807
CN808
CN810
CN813
CN501
CN502
CN503
CN504
CN505
CN506
CN507
CN508
CN509
CN551
CN552
IC501
IC801
IC802
IC803
IC804
IC805
IC806
IC807
IC808
IC809
IC810
IC811
IC812
IC813
IC814
T501 HOT
T502 PWT
T504 FBT
+135V
+15V
-15V
GND

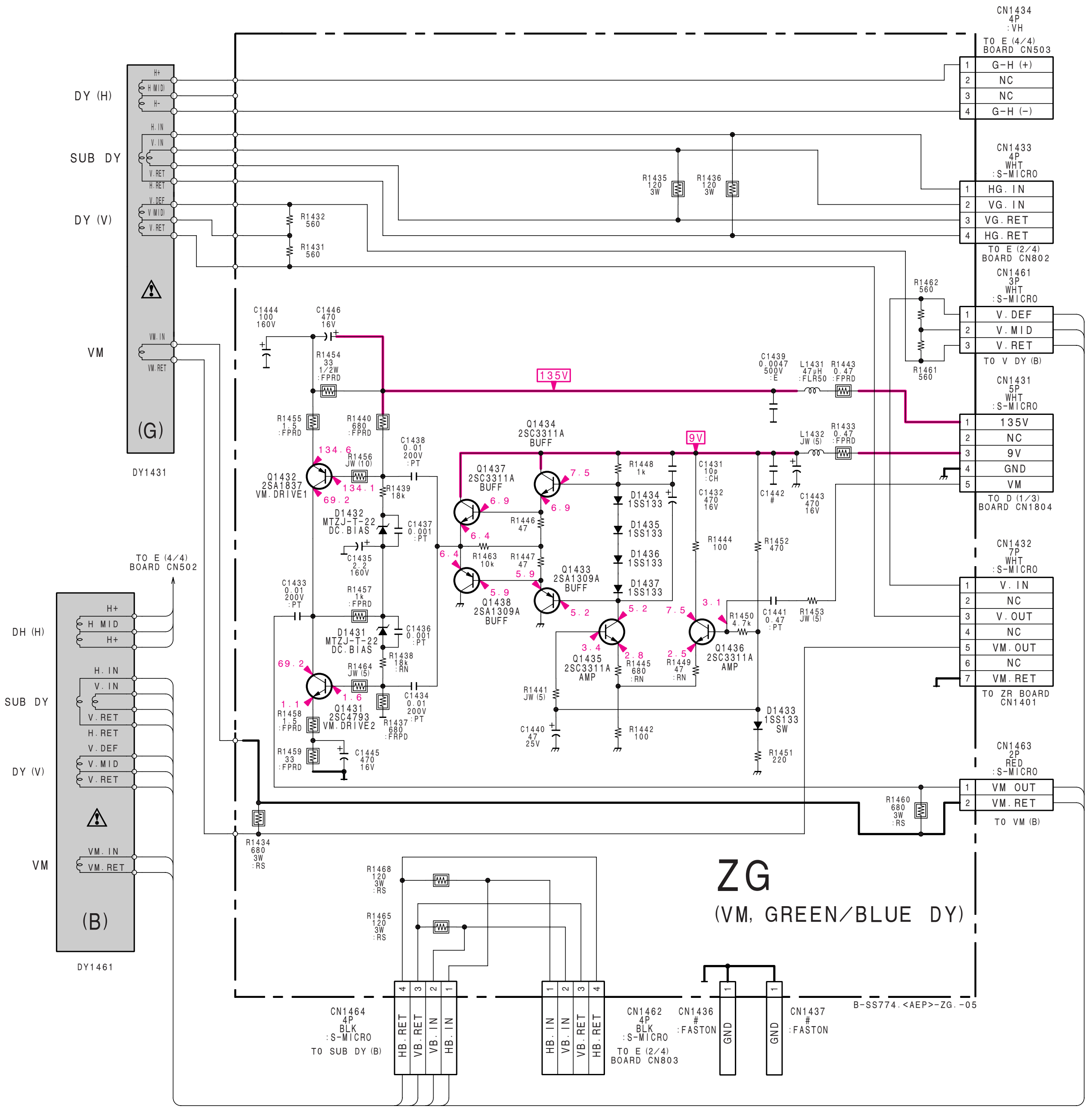
- **E BOARD SEMICONDUCTOR LOCATION**

IC	
IC501	B-3
IC801	B-1
IC802	B-2
IC803	B-1
IC804	D-4
IC805	B-3
IC806	D-2
IC807	A-3
IC808	D-1
IC809	E-2
IC810	E-3
IC811	A-3
IC812	A-2
IC813	A-2
IC814	A-3

TRANSISTOR	
Q501	E-5
Q502	D-5
Q503	A-6
Q504	A-6
Q505	B-5
Q506	A-6
Q507	A-6
Q701	C-1
Q702	C-1
Q801	A-1
Q802	B-1
Q803	A-1
Q804	A-1
Q805	B-1
Q806	A-1
Q807	A-2
Q808	A-1
Q809	E-2
Q810	E-4
Q811	B-2
Q812	B-2

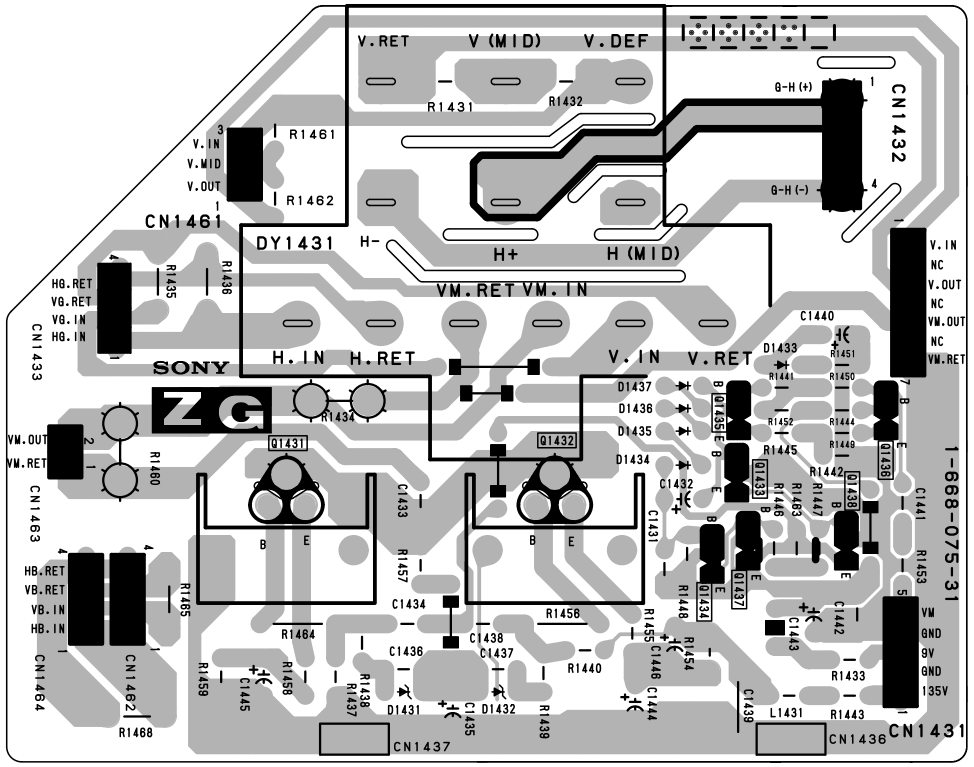
DIODE	
D501	B-3
D502	C-3
D503	A-5
D504	B-3
D507	B-3
D508	C-5
D509	C-5
D510	E-4
D511	B-5
D512	A-6
D513	C-6
D514	E-7
D515	C-7
D517	B-6
D519	E-2
D522	C-2
D523	D-4
D524	C-4
D527	B-4
D560	C-3
D701	B-1
D702	C-2
D820	C-1
D829	A-1
D835	C-3
D840	A-2
D842	A-2
D845	A-2
D846	A-3

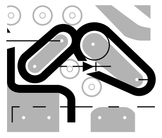
(18) Schematic Diagram of ZG Board


DY (H)
SUB DY
DY (V)
VM
(G)
DY1431
DH (H)
SUB DY
DY (V)
VM
(B)
DY1461
TO E (4/4) BOARD CN502
CN1434 4P :VH
TO E (4/4) BOARD CN503
G-H (+)
NC
NC
G-H (-)
CN1433 4P WHT :S-MICRO
HG. IN
VG. IN
VG. RET
HG. RET
TO E (2/4) BOARD CN802
CN1461 3P WHT :S-MICRO
V. DEF
V. MID
V. RET
TO V DY (B)
CN1431 5P WHT :S-MICRO
135V
NC
9V
GND
VM
TO D (1/3) BOARD CN1804
CN1432 7P WHT :S-MICRO
V. IN
NC
V. OUT
NC
VM. OUT
NC
VM. RET
TO ZR BOARD CN1401
CN1463 2P RED :S-MICRO
VM OUT
VM. RET
TO VM (B)
CN1464 4P BLK :S-MICRO
TO SUB DY (B)
HB. RET
VB. RET
VB. IN
HB. IN
CN1462 4P BLK :S-MICRO
TO E (2/4) BOARD CN803
CN1436 # :FASTON
CN1437 # :FASTON
GND
GND
Q1432 2SA1837 VM. DRIVE1
Q1431 2SC4793 VM. DRIVE2
D1432 MTZJ-T-22 DC. BIAS
D1431 MTZJ-T-22 DC. BIAS
Q1434 2SC3311A BUFF
Q1437 2SC3311A BUFF
Q1433 2SA1309A BUFF
Q1438 2SA1309A BUFF
Q1435 2SC3311A AMP
Q1436 2SC3311A AMP
D1433 1SS133 SW
D1434 1SS133
D1435 1SS133
D1436 1SS133
D1437 1SS133
135V
9V
ZG
(VM, GREEN/BLUE DY)
B-SS774. <AEP>-ZG. -05

ZG [VM, GREEN/BLUE DY]

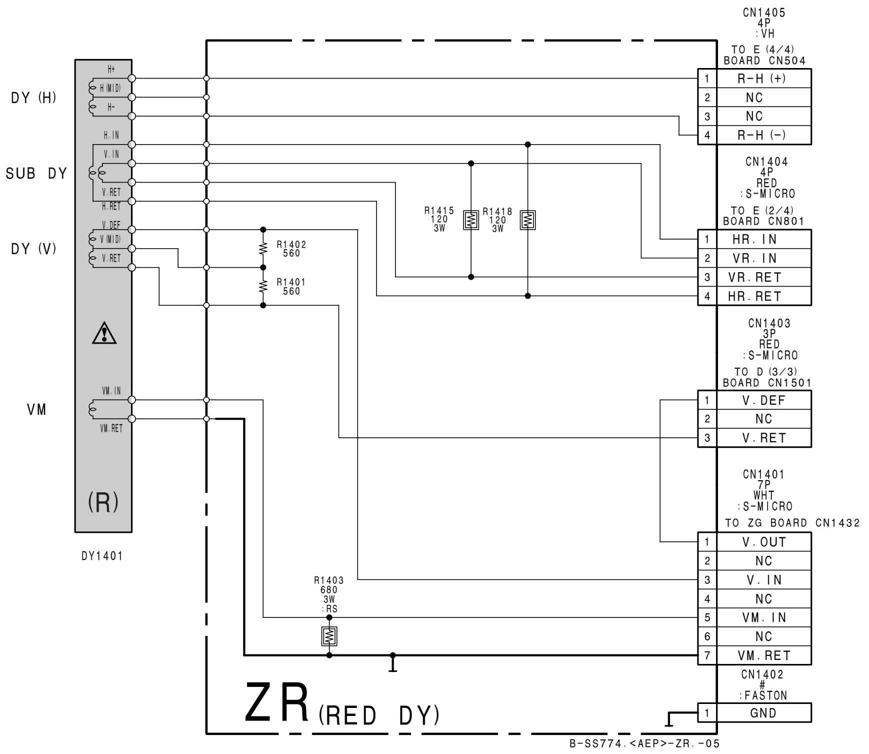
— ZG BOARD —


V. RET
V (MID)
V. DEF
CN1432
G-H (+)
G-H (-)
CN1461
DY1431
H+
H (MID)
VM. RET
VM. IN
H. IN
H. RET
V. IN
V. RET
SONY
ZG
CN1433
CN1463
CN1464
CN1462
CN1437
CN1436
CN1431
Q1431
Q1432
1-668-075-31



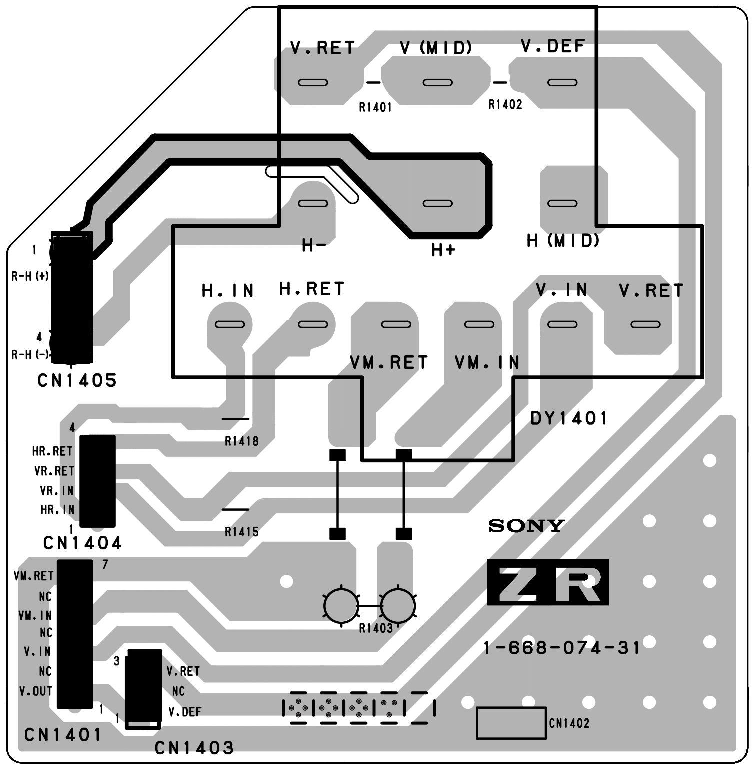
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

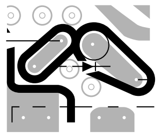
(19) Schematic Diagram of ZR Board


DY (H)
SUB DY
DY (V)
VM
(R)
DY1401
H+
H(MID)
H-
H.IN
V.IN
V.RET
H.RET
V.DEF
V(MID)
V.RET
VM.IN
VM.RET
CN1405 4P :VH
TO E (4/4) BOARD CN504
1 R-H (+)
2 NC
3 NC
4 R-H (-)
CN1404 4P RED :S-MICRO
TO E (2/4) BOARD CN801
1 HR. IN
2 VR. IN
3 VR. RET
4 HR. RET
CN1403 3P RED :S-MICRO
TO D (3/3) BOARD CN1501
1 V. DEF
2 NC
3 V. RET
CN1401 7P WHT :S-MICRO
TO ZG BOARD CN1432
1 V. OUT
2 NC
3 V. IN
4 NC
5 VM. IN
6 NC
7 VM. RET
CN1402 :FASTON
1 GND
R1415 120 3W
R1418 120 3W
R1402 560
R1401 560
R1403 680 3W :RS
ZR (RED DY)
B-SS774.<AEP>-ZR.-05

ZR [RED DY]

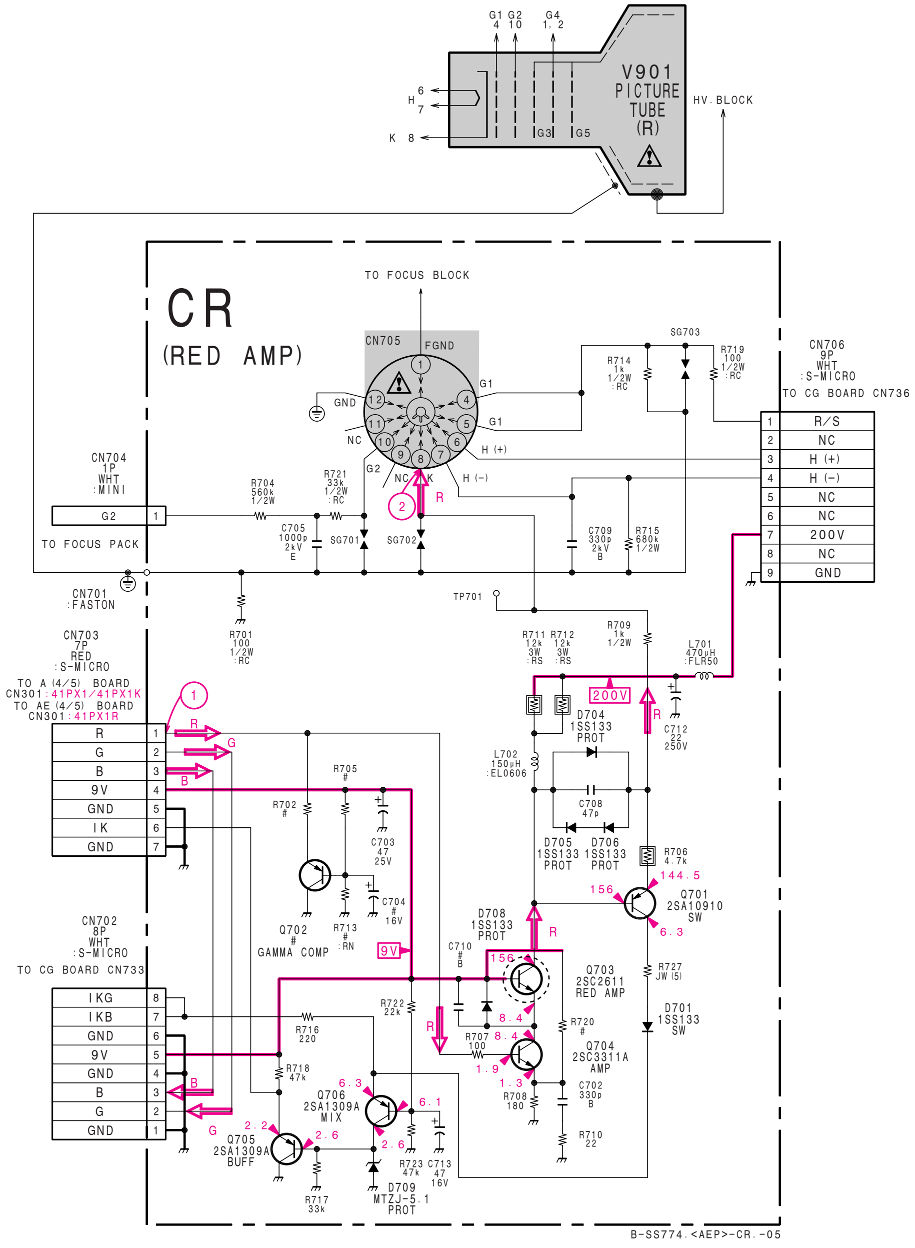
— ZR BOARD —


V.RET
V (MID)
V.DEF
R1401
R1402
H-
H+
H (MID)
H.IN
H.RET
V.IN
V.RET
VM.RET
VM.IN
DY1401
CN1405
R-H (+)
R-H (-)
R1418
R1415
HR.RET
VR.RET
VR.IN
HR.IN
CN1404
SONY
ZR
R1403
1-668-074-31
VM.RET
NC
VM.IN
NC
V.IN
NC
V.OUT
CN1401
V.RET
NC
V.DEF
CN1403
CN1402



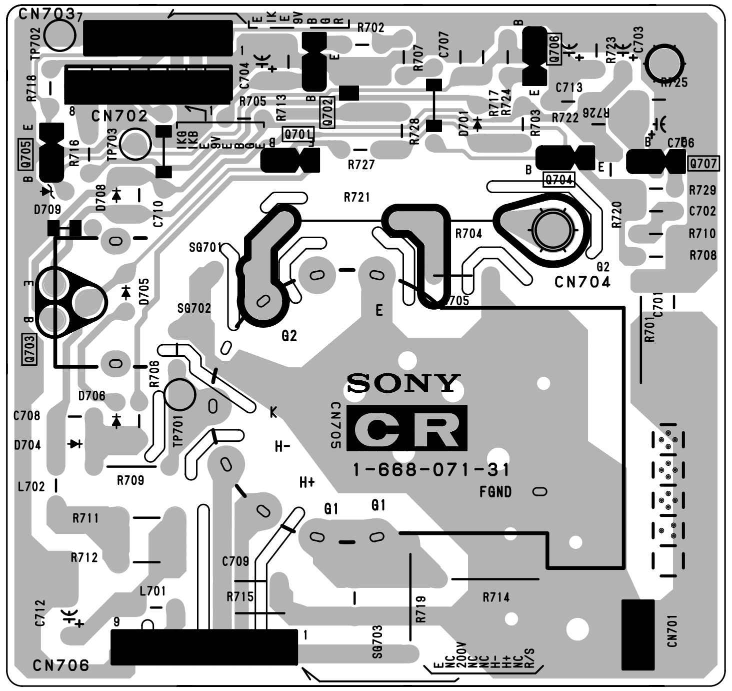
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

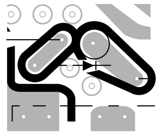
(20) Schematic Diagram of CR Board


V901
PICTURE TUBE
(R)
G1 G2 G4
HV. BLOCK
CR
(RED AMP)
TO FOCUS BLOCK
CN705
FGND
GND
G1
G2
NC
H (+)
H (−)
K
R
SG703
R714 1k 1/2W :RC
R719 100 1/2W :RC
CN706 9P WHT :S-MICRO TO CG BOARD CN736
R/S
NC
H (+)
H (−)
NC
NC
200V
NC
GND
CN704 1P WHT :MINI
G2
TO FOCUS PACK
R704 560k 1/2W
R721 33k 1/2W :RC
C705 1000p 2kV E
SG701
SG702
C709 330p 2kV B
R715 680k 1/2W
CN701 :FASTON
TP701
R701 100 1/2W :RC
R711 12k 3W :RS
R712 12k 3W :RS
R709 1k 1/2W
L701 470µH :FLR50
CN703 7P RED :S-MICRO
TO A (4/5) BOARD CN301 :41PX1/41PX1K
TO AE (4/5) BOARD CN301 :41PX1R
R
G
B
9V
GND
IK
GND
200V
D704 1SS133 PROT
C712 22 250V
L702 150µH :EL0606
R705
R702
C708 47p
D705 1SS133 PROT
D706 1SS133 PROT
R706 4.7k
C703 47 25V
C704 16V
Q702 GAMMA COMP
R713 :RN
9V
144.5
156
Q701 2SA10910 SW
6.3
D708 1SS133 PROT
C710 B
Q703 2SC2611 RED AMP
R727 JW (5)
CN702 8P WHT :S-MICRO
TO CG BOARD CN733
IKG
IKB
GND
9V
GND
B
G
GND
R716 220
R722 22k
R707 100
8.4
1.9
1.3
R720
Q704 2SC3311A AMP
D701 1SS133 SW
R718 47k
6.3
Q706 2SA1309A MIX
6.1
2.2
2.6
C702 330p B
R708 180
Q705 2SA1309A BUFF
R723 47k
C713 47 16V
R710 22
D709 MTZJ-5.1 PROT
R717 33k
B-SS774. <AEP>-CR.-05

CR [RED AMP]

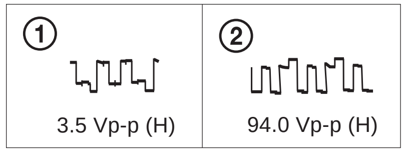
— CR BOARD —


CN703
TP702
R718
CN702
R702
R707
C707
Q706
R723
C703
R725
R705
R713
Q702
Q701
R728
D701
R717
R724
R703
C713
R722
R726
C706
Q707
Q705
R716
TP703
R727
Q704
D709
D708
C710
R721
R704
R720
R729
C702
R710
R708
SG701
CN704
D705
SG702
G2
E
Q703
R706
D706
TP701
SONY
CN705
CR
1-668-071-31
FGND
C708
D704
K
H-
H+
L702
R709
G1
R711
R712
C709
L701
R715
R719
R714
C712
CN706
SG703
R701
C701
CN701
E
NC
200V
NC
NC
H-
H+
NC
R/S

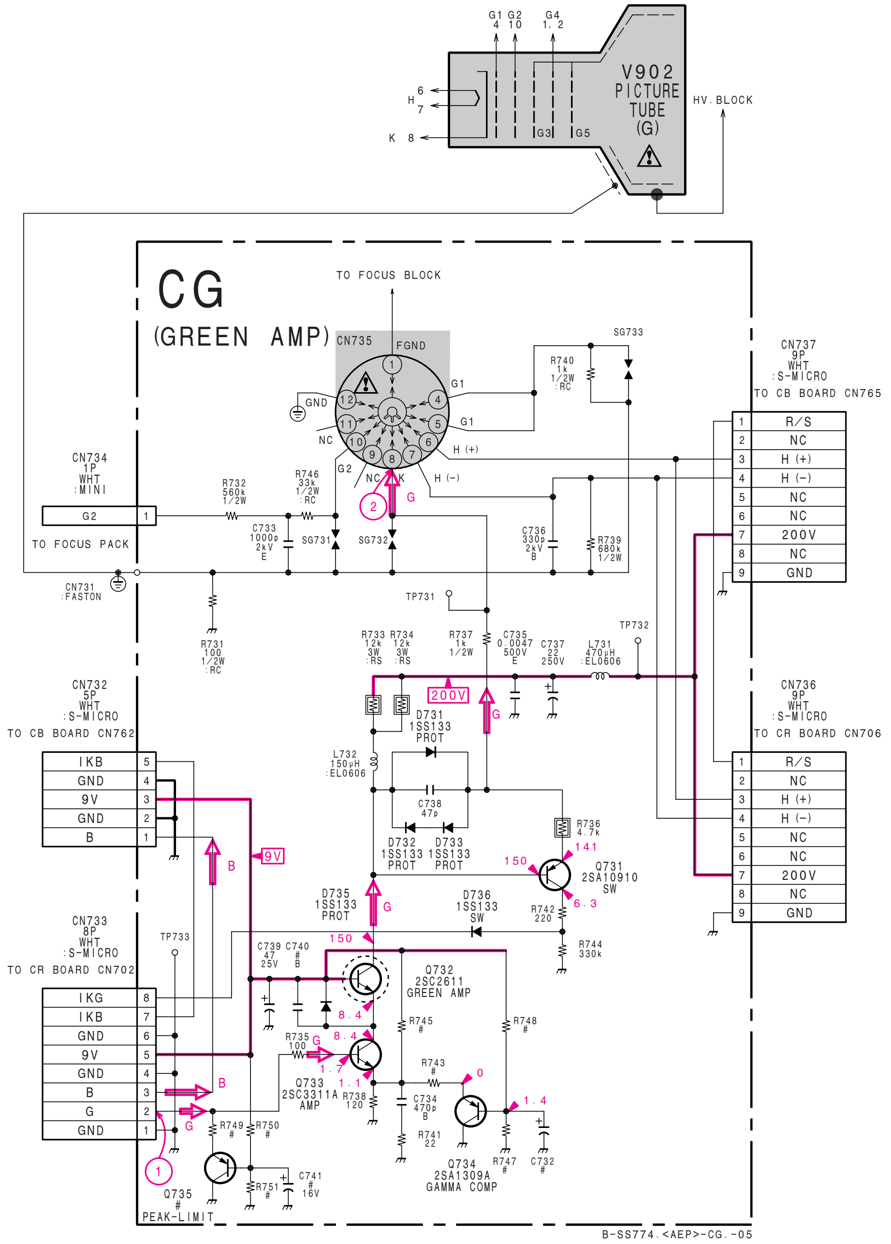


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

- **CR BOARD WAVEFORMS**

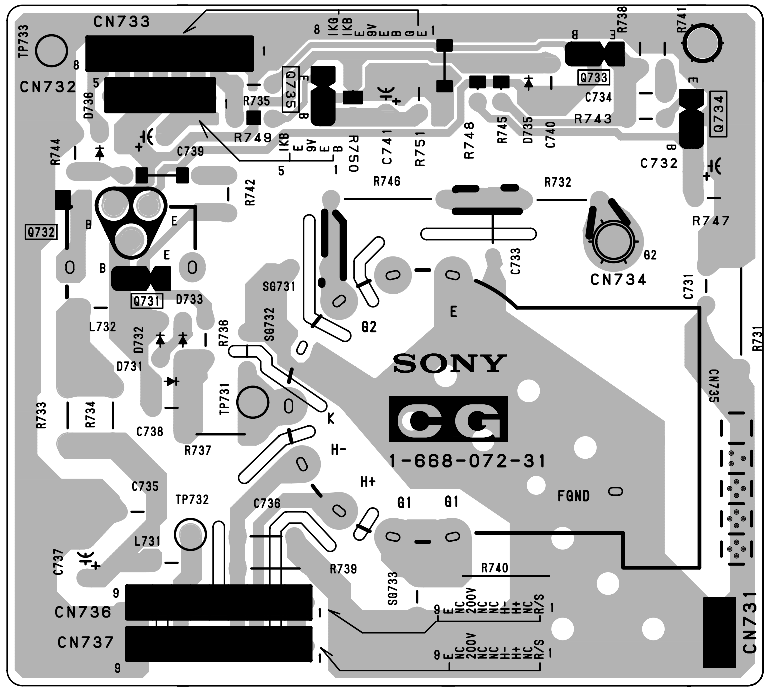


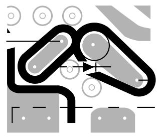
(21) Schematic Diagram of CG Board


V902
PICTURE TUBE
(G)
G1 G2 G4
HV. BLOCK
CG
(GREEN AMP)
TO FOCUS BLOCK
CN735
FGND
SG733
R740 1k 1/2W :RC
CN737 9P WHT :S-MICRO TO CB BOARD CN765
R/S
NC
H (+)
H (–)
NC
NC
200V
NC
GND
CN734 1P WHT :MINI
G2
TO FOCUS PACK
CN731 :FASTON
R732 560k 1/2W
R746 33k 1/2W :RC
C733 1000p 2kV E
SG731
SG732
C736 330p 2kV B
R739 680k 1/2W
TP731
R731 100 1/2W :RC
R733 12k 3W :RS
R734 12k 3W :RS
R737 1k 1/2W
C735 0.0047 500V E
C737 22 250V
L731 470μH :EL0606
TP732
200V
D731 1SS133 PROT
L732 150μH :EL0606
C738 47p
D732 1SS133 PROT
D733 1SS133 PROT
R736 4.7k
Q731 2SA1091O SW
R742 220
R744 330k
D735 1SS133 PROT
D736 1SS133 SW
CN736 9P WHT :S-MICRO TO CR BOARD CN706
CN732 5P WHT :S-MICRO TO CB BOARD CN762
IKB
GND
9V
GND
B
9V
CN733 8P WHT :S-MICRO TO CR BOARD CN702
IKG
IKB
GND
9V
GND
B
G
GND
TP733
C739 47 25V
C740 # B
Q732 2SC2611 GREEN AMP
R735 100
Q733 2SC3311A AMP
R738 120
R745 #
R748 #
R743 #
C734 470p B
R741 22
Q734 2SA1309A GAMMA COMP
R747 #
C732 #
R749 #
R750 #
R751 #
C741 # 16V
Q735 # PEAK-LIMIT
150
141
6.3
8.4
1.7
1.1
0
1.4
B-SS774.<AEP>-CG.-05

CG [GREEN AMP]

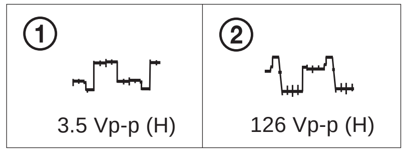
— CG BOARD —


CN733
CN732
CN734
CN736
CN737
CN731
CN735
SONY
CG
1-668-072-31
FGND
TP731
TP732
TP733
Q731
Q732
Q733
Q734
Q735
G2
G1
H+
H-
K
E



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

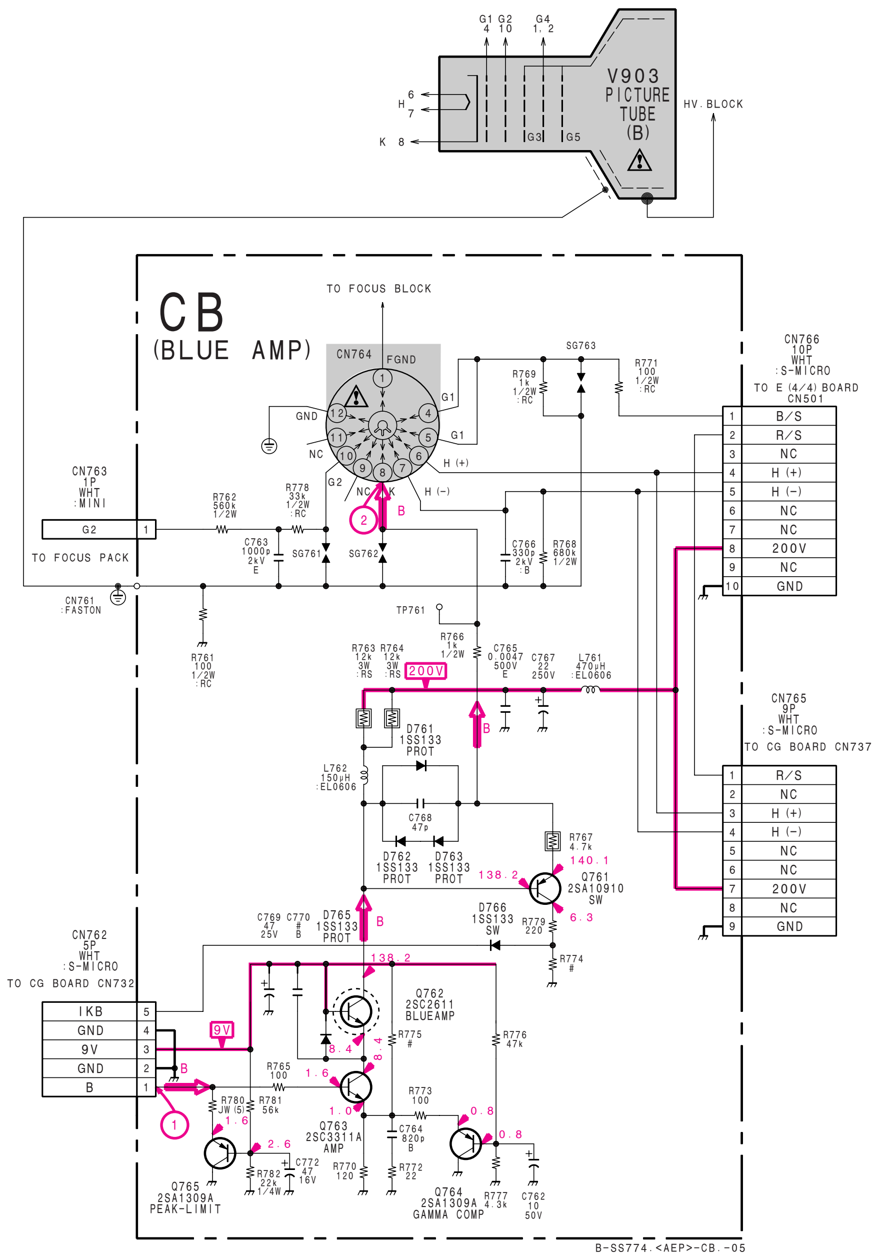
• **CG BOARD WAVEFORMS**



3.5 Vp-p (H)

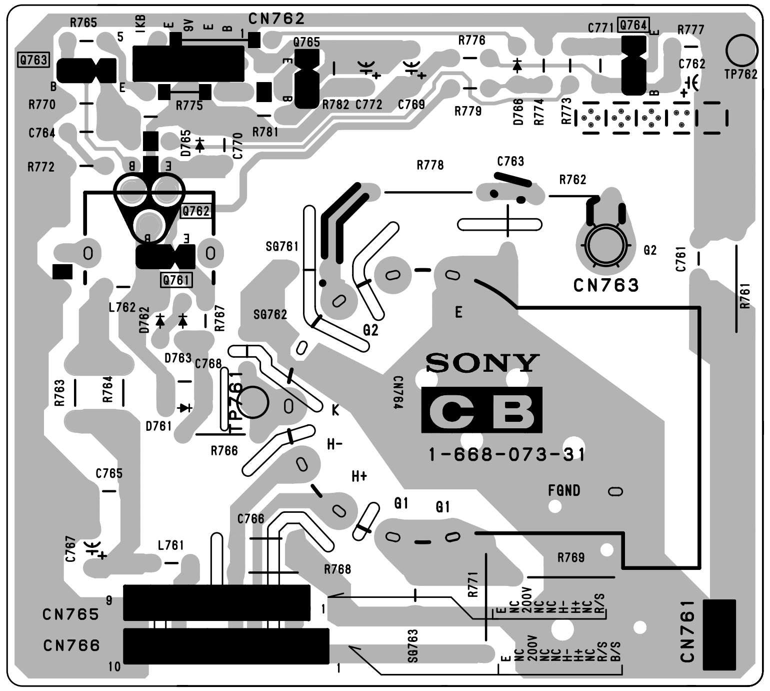
126 Vp-p (H)

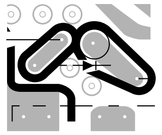
(22) Schematic Diagram of CB Board


V903
PICTURE TUBE (B)
HV. BLOCK
G1 G2 G4
G3 G5
CB
(BLUE AMP)
TO FOCUS BLOCK
CN764
FGND
SG763
R769 1k 1/2W :RC
R771 100 1/2W :RC
CN766 10P WHT :S-MICRO
TO E (4/4) BOARD CN501
B/S
R/S
NC
H (+)
H (–)
NC
NC
200V
NC
GND
CN763 1P WHT :MINI
G2
TO FOCUS PACK
R762 560k 1/2W
R778 33k 1/2W :RC
C763 1000p 2kV E
SG761
SG762
C766 330p 2kV B
R768 680k 1/2W
CN761 :FASTON
R761 100 1/2W :RC
TP761
R763 12k 3W :RS
R764 12k 3W :RS
200V
R766 1k 1/2W
C765 0.0047 500V E
C767 22 250V
L761 470μH :EL0606
CN765 9P WHT :S-MICRO
TO CG BOARD CN737
R/S
NC
H (+)
H (–)
NC
NC
200V
NC
GND
D761 1SS133 PROT
L762 150μH :EL0606
C768 47p
D762 1SS133 PROT
D763 1SS133 PROT
R767 4.7k
140.1
138.2
Q761 2SA1091O SW
6.3
D766 1SS133 SW
R779 220
R774 #
CN762 5P WHT :S-MICRO
TO CG BOARD CN732
IKB
GND
9V
GND
B
9V
C769 47 25V
C770 # B
D765 1SS133 PROT
138.2
Q762 2SC2611 BLUEAMP
R775 #
R776 47k
8.4
R765 100
1.6
R780 JW(5)
R781 56k
1.0
R773 100
0.8
Q763 2SC3311A AMP
C764 820p B
0.8
2.6
Q765 2SA1309A PEAK-LIMIT
R782 22k 1/4W
C772 47 16V
R770 120
R772 22
Q764 2SA1309A GAMMA COMP
R777 4.3k
C762 10 50V
①
②
B-SS774.<AEP>-CB.-05

CB [BLUE AMP]

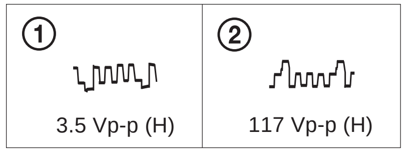
— CB BOARD —


CN762
R765
IKB
9V
E
B
Q763
Q765
R776
C771
Q764
R777
C762
TP762
R770
R775
R782 C772
C769
R779
D766
R774
R773
C784
D765
C770
R781
R772
R778
C763
R762
Q762
SG761
Q761
G2
C761
CN763
L762
D762
R787
SG762
E
R763
R764
D763
C768
TP761
K
D761
R766
H-
H+
C765
G1
G1
FGND
C767
L761
C766
R768
R769
R771
R761
SONY
CB
1-668-073-31
CN765
CN766
SG763
CN761
CN764



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

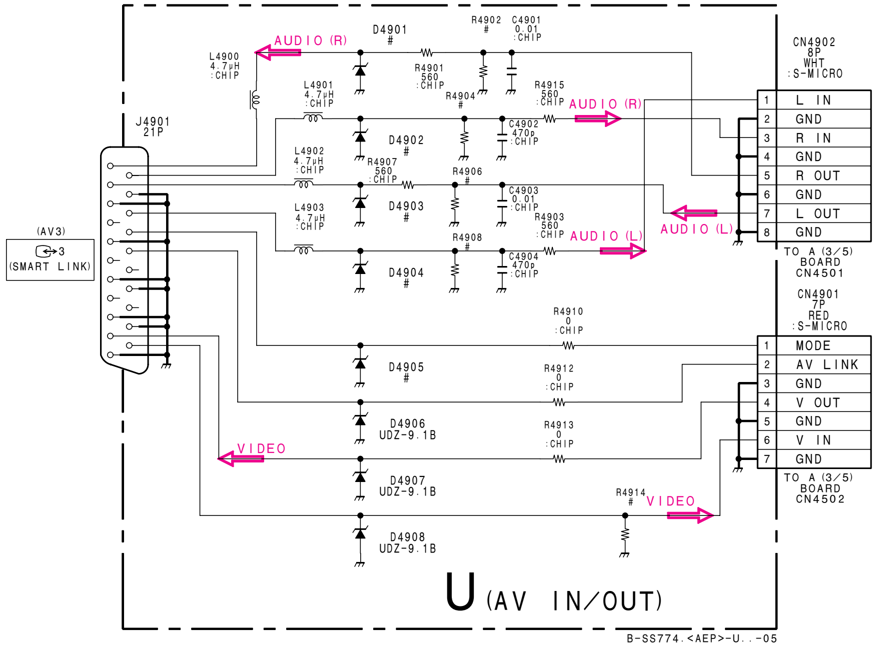
- **CB BOARD WAVEFORMS**



3.5 Vp-p (H)

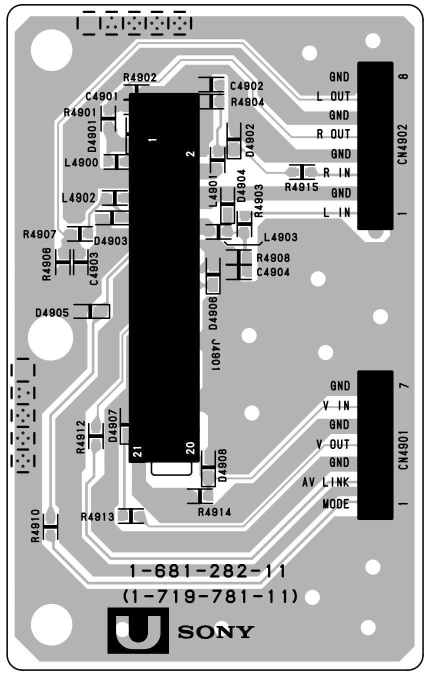
117 Vp-p (H)

(23) Schematic Diagram of U Board (41PX1/41PX1K)


AUDIO (R)
L4900
4.7μH
:CHIP
D4901
#
R4902
#
C4901
0.01
:CHIP
R4901
560
:CHIP
L4901
4.7μH
:CHIP
R4904
#
R4915
560
:CHIP
AUDIO (R)
C4902
470p
:CHIP
J4901
21P
D4902
#
L4902
4.7μH
:CHIP
R4907
560
:CHIP
R4906
#
C4903
0.01
:CHIP
D4903
#
L4903
4.7μH
:CHIP
R4903
560
:CHIP
R4908
#
C4904
470p
:CHIP
AUDIO (L)
AUDIO (L)
D4904
#
(AV3)
3
(SMART LINK)
CN4902
8P
WHT
:S-MICRO
1 L IN
2 GND
3 R IN
4 GND
5 R OUT
6 GND
7 L OUT
8 GND
TO A (3/5) BOARD CN4501
CN4901
7P
RED
:S-MICRO
1 MODE
2 AV LINK
3 GND
4 V OUT
5 GND
6 V IN
7 GND
TO A (3/5) BOARD CN4502
R4910
0
:CHIP
D4905
#
R4912
0
:CHIP
D4906
UDZ-9.1B
R4913
0
:CHIP
VIDEO
D4907
UDZ-9.1B
R4914
#
VIDEO
D4908
UDZ-9.1B
U (AV IN/OUT)
B-SS774.<AEP>-U..-05

U [AV IN/OUT]

— U BOARD — (41PX1/41PX1K)

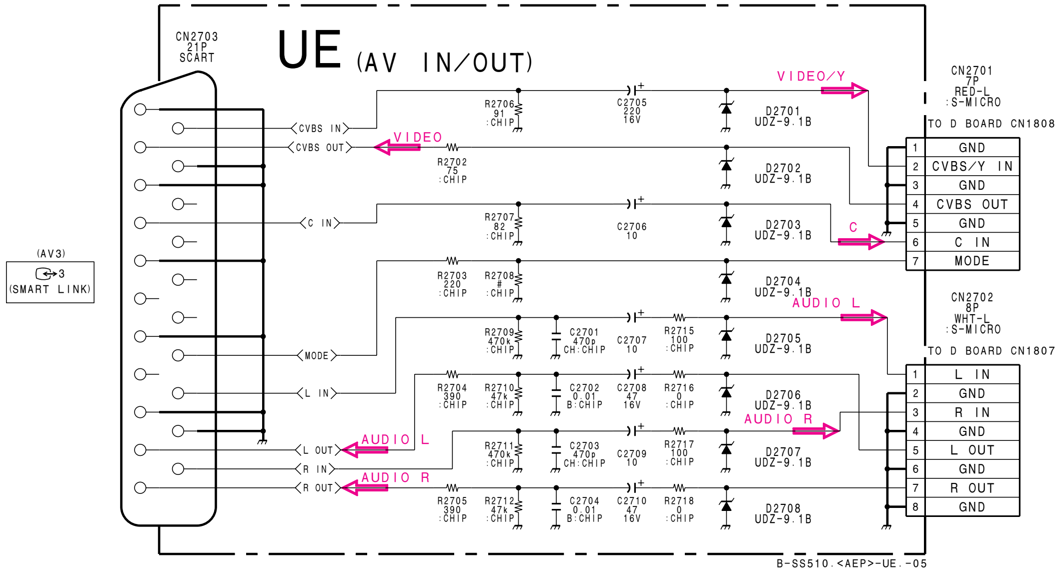

C4901
R4902
C4902
R4904
R4901
D4901
L4900
D4902
L4902
L4901
D4904
R4903
R4915
R4907
D4903
L4903
R4908
C4903
R4908
C4904
D4905
D4906
J4901
R4912
D4907
D4908
R4910
R4913
R4914
1
2
20
21
GND
L OUT
GND
R OUT
GND
R IN
GND
L IN
CN4902
8
1
GND
V IN
GND
V OUT
GND
AV LINK
MODE
CN4901
7
1
1-681-282-11
(1-719-781-11)
U
SONY

U BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D4906 – D4908	③

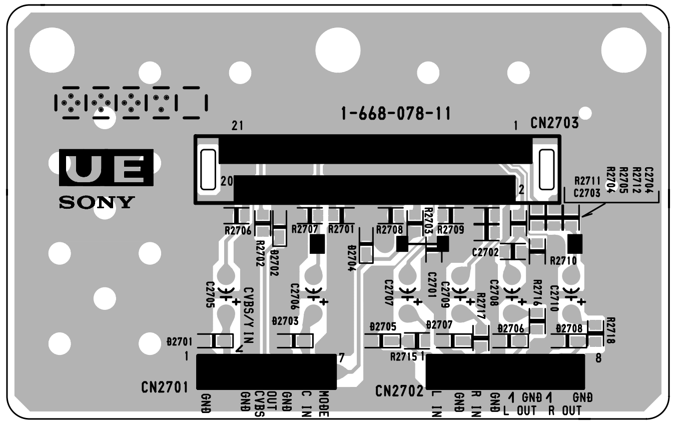
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)

(24) Schematic Diagram of UE Board (41PX1R)


UE (AV IN/OUT)
CN2703
21P
SCART
(AV3)
3
(SMART LINK)
CVBS IN
CVBS OUT
C IN
MODE
L IN
L OUT
R IN
R OUT
VIDEO
AUDIO L
AUDIO R
VIDEO/Y
C
R2706 91 :CHIP
R2702 75 :CHIP
R2707 82 :CHIP
R2703 220 :CHIP
R2708 # :CHIP
R2709 470k :CHIP
R2704 390 :CHIP
R2710 47k :CHIP
R2711 470k :CHIP
R2705 390 :CHIP
R2712 47k :CHIP
C2701 470p CH:CHIP
C2702 0.01 B:CHIP
C2703 470p CH:CHIP
C2704 0.01 B:CHIP
C2705 220 16V
C2706 10
C2707 10
C2708 47 16V
C2709 10
C2710 47 16V
R2715 100 :CHIP
R2716 0 :CHIP
R2717 100 :CHIP
R2718 0 :CHIP
D2701 UDZ-9.1B
D2702 UDZ-9.1B
D2703 UDZ-9.1B
D2704 UDZ-9.1B
D2705 UDZ-9.1B
D2706 UDZ-9.1B
D2707 UDZ-9.1B
D2708 UDZ-9.1B
CN2701
7P
RED-L
:S-MICRO
TO D BOARD CN1808
1 GND
2 CVBS/Y IN
3 GND
4 CVBS OUT
5 GND
6 C IN
7 MODE
CN2702
8P
WHT-L
:S-MICRO
TO D BOARD CN1807
1 L IN
2 GND
3 R IN
4 GND
5 L OUT
6 GND
7 R OUT
8 GND
B-SS510.<AEP>-UE.-05

UE [AV IN/OUT]

— UE BOARD — (41PX1R)

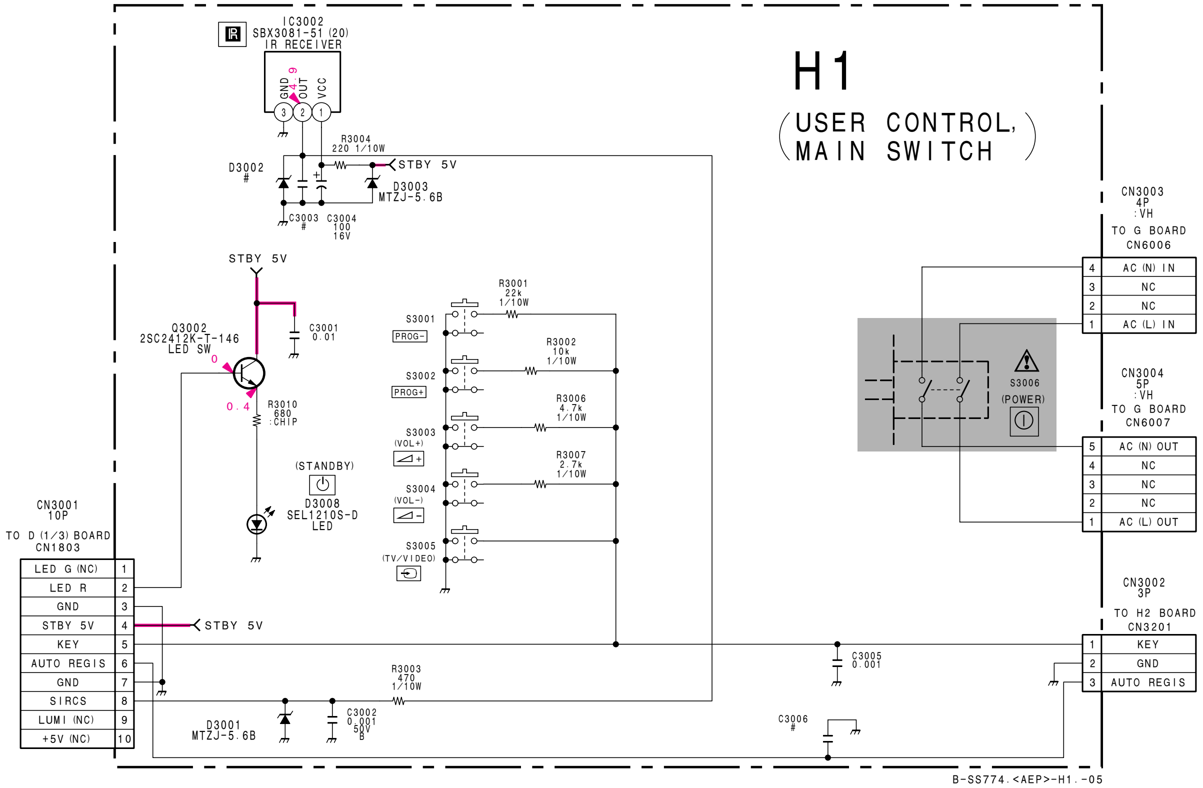

UE
SONY
1-668-078-11
CN2703
21
1
20
2
CN2701
CN2702
GND
CVBS OUT
GND
C IN
MODE
L IN
GND
R IN
GND
L OUT
R OUT
GND
D2701
D2703
D2705
D2707
D2706
D2708
R2715
R2718

UE BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D2701 – D2708	③

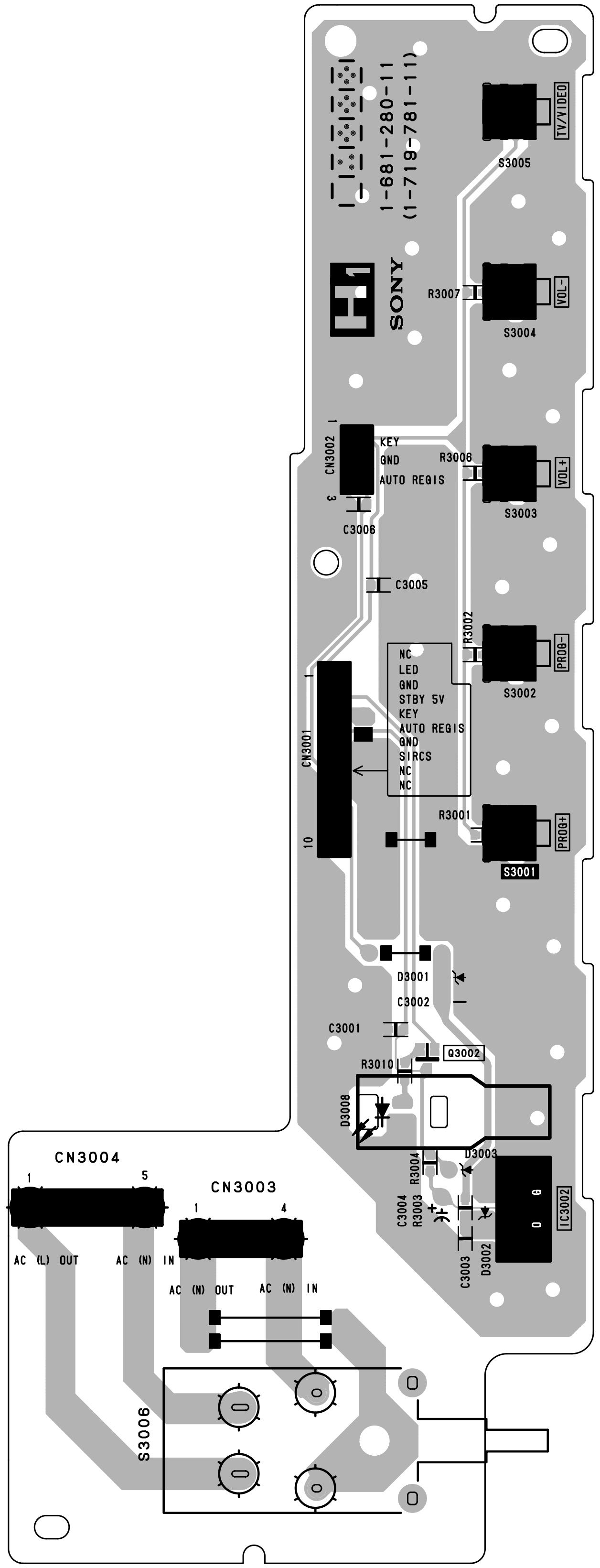
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)

(25) Schematic Diagram of H1 Board


H1
(USER CONTROL, MAIN SWITCH)
IC3002
SBX3081-51 (20)
IR RECEIVER
GND OUT VCC
R3004 220 1/10W
STBY 5V
D3002 #
D3003 MTZJ-5.6B
C3003 #
C3004 100 16V
STBY 5V
Q3002 2SC2412K-T-146 LED SW
C3001 0.01
R3010 680 CHIP
(STANDBY)
D3008 SEL1210S-D LED
S3001 PROG−
S3002 PROG+
S3003 (VOL+)
S3004 (VOL−)
S3005 (TV/VIDEO)
R3001 22k 1/10W
R3002 10k 1/10W
R3006 4.7k 1/10W
R3007 2.7k 1/10W
S3006 (POWER)
CN3003 4P :VH TO G BOARD CN6006
AC (N) IN
NC
NC
AC (L) IN
CN3004 5P :VH TO G BOARD CN6007
AC (N) OUT
NC
NC
NC
AC (L) OUT
CN3002 3P TO H2 BOARD CN3201
KEY
GND
AUTO REGIS
CN3001 10P TO D (1/3) BOARD CN1803
LED G (NC)
LED R
GND
STBY 5V
KEY
AUTO REGIS
GND
SIRCS
LUMI (NC)
+5V (NC)
C3005 0.001
R3003 470 1/10W
C3002 0.001 50V B
C3006 #
D3001 MTZJ-5.6B
B-SS774.<AEP>-H1.-05

H1 [USER CONTROL, MAIN SWITCH]

— H1 BOARD —


1-681-280-11
(1-719-781-11)
H1
SONY
S3005 TV/VIDEO
S3004 VOL−
R3007
S3003 VOL+
R3006
CN3002
KEY
GND
AUTO REGIS
C3006
C3005
R3002
S3002 PROG−
CN3001
NC
LED
GND
STBY 5V
KEY
AUTO REGIS
GND
SIRCS
NC
NC
R3001
S3001 PROG+
D3001
C3002
C3001
R3010
Q3002
D3008
R3004
D3003
C3004
R3003
IC3002
C3003
D3002
CN3004
AC (L) OUT
AC (N) IN
CN3003
AC (N) OUT
AC (N) IN
S3006

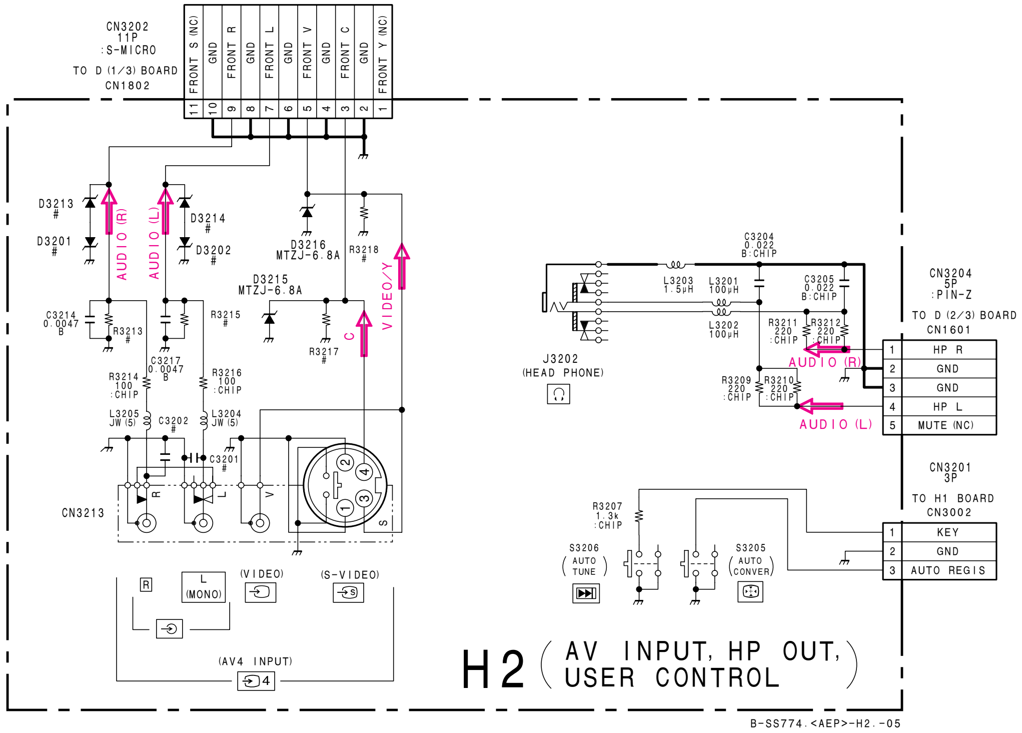
H1 BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q3002	①

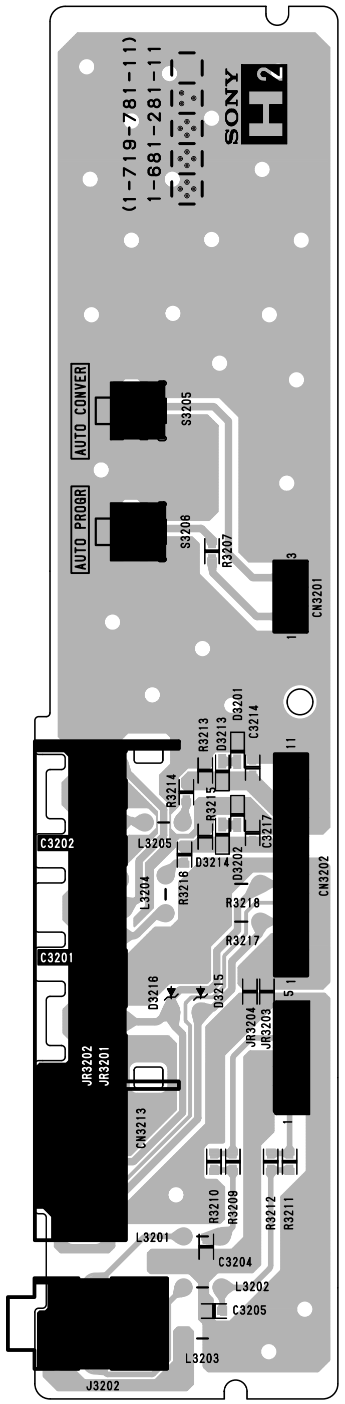
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)

(26) Schematic Diagram of H2 Board

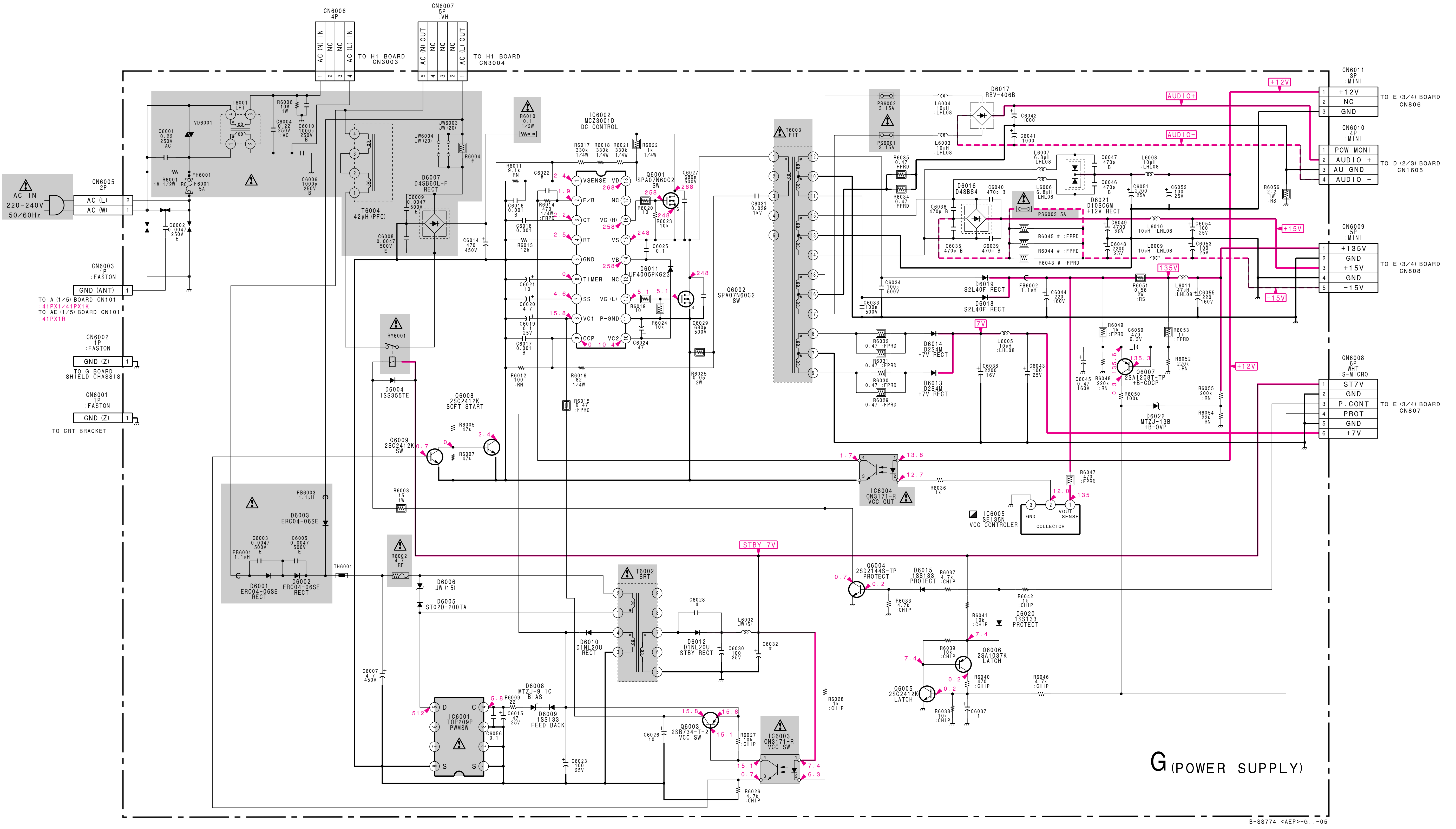
H2 [AV INPUT, HP OUT, USER CONTROL]


CN3202
11P
:S-MICRO
TO D (1/3) BOARD
CN1802
11 FRONT S (NC)
10 GND
9 FRONT R
8 GND
7 FRONT L
6 GND
5 FRONT V
4 GND
3 FRONT C
2 GND
1 FRONT Y (NC)
D3213 #
D3201 #
D3214 #
D3202 #
AUDIO (R)
AUDIO (L)
D3216 MTZJ-6.8A
D3215 MTZJ-6.8A
R3218 #
VIDEO/Y
C
C3214 0.0047 B
R3213 #
R3215 #
R3217 #
C3217 0.0047 B
R3214 100 :CHIP
R3216 100 :CHIP
L3205 JW (5)
L3204 JW (5)
C3202 #
C3201 #
CN3213
R
L
V
S
R
L (MONO)
(VIDEO)
(S-VIDEO)
(AV4 INPUT)
4
C3204 0.022 B:CHIP
L3203 1.5μH
L3201 100μH
L3202 100μH
C3205 0.022 B:CHIP
R3211 220 :CHIP
R3212 220 :CHIP
R3209 220 :CHIP
R3210 220 :CHIP
J3202 (HEAD PHONE)
AUDIO (R)
AUDIO (L)
CN3204
5P
:PIN-Z
TO D (2/3) BOARD
CN1601
1 HP R
2 GND
3 GND
4 HP L
5 MUTE (NC)
CN3201
3P
TO H1 BOARD
CN3002
1 KEY
2 GND
3 AUTO REGIS
R3207 1.3k :CHIP
S3206 (AUTO TUNE)
S3205 (AUTO CONVER)
H2 (AV INPUT, HP OUT, USER CONTROL)
B-SS774.<AEP>-H2.-05

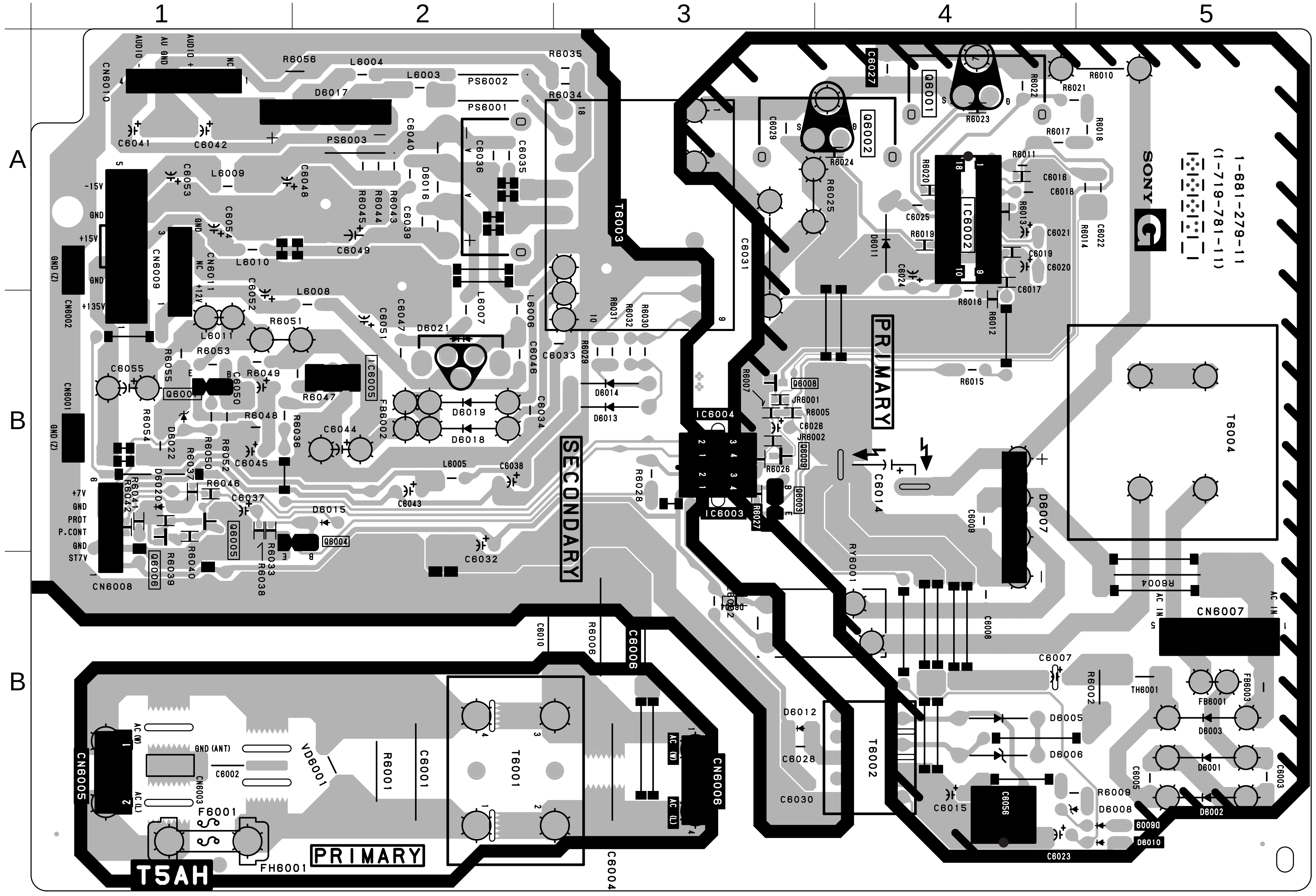
— H2 BOARD —


(1-719-781-11)
1-681-281-11
SONY
H2
AUTO CONVER
S3205
AUTO PROGR
S3206
R3207
CN3201
3
1
R3213
D3213
D3201
C3214
11
R3214
R3215
C3217
C3202
L3205
D3214
D3202
L3204
R3216
R3218
R3217
CN3202
C3201
D3216
D3215
JR3204
JR3203
5
1
JR3202
JR3201
CN3213
R3210
R3209
R3212
R3211
L3201
C3204
L3202
C3205
L3203
J3202

(27) Schematic Diagram of G Board


CN6006 4P
AC (N) IN
NC
NC
AC (L) IN
TO H1 BOARD CN3003
CN6007 5P :VH
AC (N) OUT
NC
NC
NC
AC (L) OUT
TO H1 BOARD CN3004
CN6005 2P
AC IN 220-240V 50/60Hz
AC (L)
AC (W)
CN6003 1P :FASTON
GND (ANT)
TO A (1/5) BOARD CN101 :41PX1/41PX1K
TO AE (1/5) BOARD CN101 :41PX1R
CN6002 1P :FASTON
GND (Z)
TO G BOARD SHIELD CHASSIS
CN6001 1P :FASTON
GND (Z)
TO CRT BRACKET
T6001 LFT
VD6001
R6006 10M 1W
C6004 0.22 250V :AC
C6010 1000p 250V B
C6001 0.22 250V :AC
R6001 1M 1/2W :RC
FH6001
F6001 5A
C6002 0.0047 250V E
C6006 1000p 250V B
JW6003 JW (20)
JW6004 JW (20)
R6004
T6004 42μH (PFC)
D6007 D4SB60L-F RECT
C6009 0.0047 500V E
C6008 0.0047 500V E
C6014 470 450V
R6010 0.1 1/2W
IC6002 MCZ3001D DC CONTROL
R6017 330k 1/4W
R6018 330k 1/4W
R6021 330k 1/4W
R6022 1k 1/4W
R6011 9.1k :RN
C6022
R6014 470 1/4W :FPRD
C6016 0.001 B
C6018 0.001
R6013 12k
C6021 10
C6020 4.7
C6019 0.1 25V
C6017 0.001 B
R6012 100 :RN
R6016 82 1/4W
R6015 0.47 :FPRD
VSENSE
VD
F/B
NC
CT
VG (H)
RT
VS
GND
VB
TIMER
NC
SS
VG (L)
VC1
P-GND
OCP
VC2
Q6001 SPA07N60C2 SW
C6027 680p 500V
R6020 10
R6023 10k
C6025 0.1
D6011 UF4005PKG23
Q6002 SPA07N60C2 SW
R6019 10
R6024 10k
C6029 680p 500V
C6024 47
R6025 0.05 2W
C6031 0.039 1kV
T6003 PIT
RY6001
D6004 1SS355TE
Q6008 2SC2412K SOFT START
R6005 47k
R6007 47k
Q6009 2SC2412K SW
R6003 15 1W
FB6003 1.1μH
D6003 ERC04-06SE
C6003 0.0047 500V E
C6005 0.0047 500V E
FB6001 1.1μH
D6001 ERC04-06SE RECT
D6002 ERC04-06SE RECT
TH6001
R6002 4.7 :RF
D6006 JW (15)
D6005 ST02D-200TA
C6007 4.7 450V
IC6001 TOP209P PWMSW
D
C
S
S
R6009 22
C6015 47 25V
C6056 0.1
D6008 MTZJ-9.1C BIAS
D6009 1SS133 FEED BACK
C6023 100 25V
T6002 SRT
D6010 D1NL20U RECT
C6028
D6012 D1NL20U STBY RECT
C6030 100 25V
L6002 JW (5)
C6032
C6026 10
Q6003 2SB734-T-2 VCC SW
R6027 10k :CHIP
IC6003 ON3171-R VCC SW
R6026 4.7k :CHIP
R6028 1k :CHIP
STBY 7V
IC6004 ON3171-R VCC OUT
R6036 1k
R6047 470 :FPRD
IC6005 SE135N VCC CONTROLER
GND
VOUT
SENSE
COLLECTOR
Q6004 2SD2144S-TP PROTECT
D6015 1SS133 PROTECT
R6037 4.7k :CHIP
R6033 4.7k :CHIP
R6042 1k :CHIP
R6041 10k :CHIP
D6020 1SS133 PROTECT
R6039 10k :CHIP
Q6006 2SA1037K LATCH
R6040 470 :CHIP
R6046 4.7k :CHIP
Q6005 2SC2412K LATCH
R6038 10k :CHIP
C6037 1
PS6002 3.15A
PS6001 3.15A
D6017 RBV-406B
L6004 10μH :LHL08
L6003 10μH :LHL08
C6042 1000
C6041 1000
AUDIO+
AUDIO-
R6035 0.47 :FPRD
R6034 0.47 :FPRD
L6007 6.8μH :LHL08
C6047 470p B
L6008 10μH :LHL08
D6016 D4SBS4
C6040 470p B
L6006 6.8μH :LHL08
C6046 470p B
C6051 2200 25V
C6052 100 25V
D6021 D10SC6M +12V RECT
C6036 470p B
PS6003 5A
R6045 # :FPRD
R6044 # :FPRD
R6043 # :FPRD
C6035 470p B
C6039 470p B
C6049 4700 25V
C6048 2200 25V
L6010 10μH :LHL08
L6009 10μH :LHL08
C6054 100 25V
C6053 100 25V
R6056 2.2 1W :RS
C6034 100p 500V
C6033 100p 500V
D6019 S2L40F RECT
D6018 S2L40F RECT
FB6002 1.1μH
C6044 220 160V
R6051 0.56 2W :RS
L6011 47μH :LHL08
C6055 220 160V
R6032 0.47 :FPRD
R6031 0.47 :FPRD
R6030 0.47 :FPRD
R6029 0.47 :FPRD
D6014 D2S4M +7V RECT
D6013 D2S4M +7V RECT
L6005 10μH :LHL08
C6038 2200 16V
C6043 100 25V
R6049 1k :FPRD
C6050 470 6.3V
R6053 1k :FPRD
C6045 0.47 160V
R6048 220k :RN
Q6007 2SA1208T-TP +B-COCP
R6052 220k :RN
R6050 100k
R6055 200k :RN
R6054 22k :RN
D6022 MTZJ-13B +B-OVP
CN6011 3P :MINI
+12V
NC
GND
TO E (3/4) BOARD CN806
CN6010 4P :MINI
POW MONI
AUDIO +
AU GND
AUDIO -
TO D (2/3) BOARD CN1605
CN6009 5P :MINI
+135V
GND
+15V
GND
-15V
TO E (3/4) BOARD CN808
CN6008 6P WHT :S-MICRO
ST7V
GND
P.CONT
PROT
GND
+7V
TO E (3/4) BOARD CN807
+12V
+15V
135V
-15V
7V
G (POWER SUPPLY)
B-SS774.<AEP>-G..-05

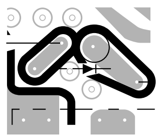
G [POWER SUPPLY]


1
2
3
4
5
A
B
B
SECONDARY
PRIMARY
PRIMARY
T5AH
SONY
G
1-681-279-11
(1-719-781-11)
CN6010
CN6009
CN6011
CN6002
CN6001
CN6008
CN6005
CN6006
CN6007
CN6003
IC6001
IC6002
IC6003
IC6004
IC6005
T6001
T6002
T6003
T6004
F6001
FH6001
VD6001
PS6001
PS6002
PS6003
L6003
L6004
L6005
L6006
L6007
L6008
L6009
L6010
L6011
Q6001
Q6002
Q6003
Q6004
Q6005
Q6006
Q6007
Q6008
Q6009
D6005
D6006
D6007
D6008
D6012
D6013
D6014
D6015
D6016
D6017
D6018
D6019
D6020
D6021
D6022
RY6001
TH6001
FB6001
FB6002
FB6003
R6001
R6002
R6004
R6006
R6009
C6001
C6002
C6004
C6006
C6007
C6015
C6023
C6028
C6030
C6056
AUDIO -
AU GND
AUDIO +
NC
-15V
GND
+15V
GND (Z)
+135V
+12V
+7V
PROT
P.CONT
ST7V
AC IN
AC (H)
AC (L)
GND (ANT)

• G BOARD SEMICONDUCTOR LOCATION

		*
IC		
IC6001		
IC6002	A-4	
IC6003	B-3	
IC6004	B-3	
IC6005	B-2	
TRANSISTOR		
Q6001	A-4	–
Q6002	A-4	–
Q6003	B-3	–
Q6004	B-2	–
Q6005	B-1	①
Q6006	B-1	①
Q6007	B-1	–
Q6008	B-3	①
Q6009	B-3	①
DIODE		
D6001	C-5	–
D6002	C-5	–
D6003	C-5	–
D6004	C-3	③
D6005	C-4	–
D6007	B-4	–
D6008	C-4	–
D6009	C-5	–
D6010	C-5	–
D6011	A-4	–
D6012	C-3	–
D6013	B-3	–
D6014	B-3	–
D6015	B-2	–
D6016	A-2	–
D6017	A-2	–
D6018	B-2	–
D6019	B-2	–
D6020	B-1	–
D6021	B-2	–
D6022	B-1	–

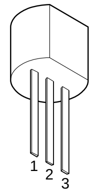
*****: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 54)



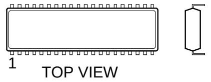
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

7-5. SEMICONDUCTORS

AN77L12-TA
NJM78L12A-T3
NJM79L12A
NJM79L12A-T3

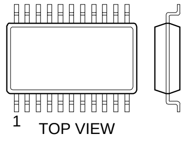


CA0007AD
NJM2058D
μPC339C



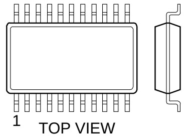
14pin DIP

CA0007AM
MC14066BF
MC14066BFEL



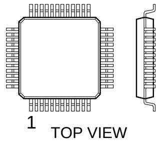
14pin SOP

CXA1315M
CXA1315M-T4
TDA4665T/V5-118



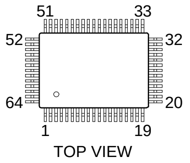
16pin SOP

CXA2040AQ-T4

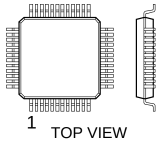


32pin QFP

CXA2076Q-TL

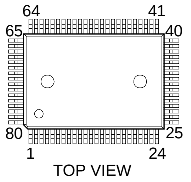

51
33
52
32
64
20
1
19
TOP VIEW

CXA2089Q-T6
CXD2064Q-T6

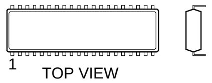


48pin QFP

CXD2044Q-TL

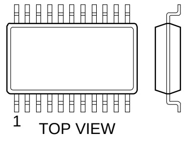

64
41
65
40
80
25
1
24
TOP VIEW

CXP86213-003S



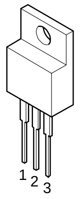
52pin DIP

LM358D
LM358DR
M24C08-MN6T(A)
M24C32-MN6T
NJM2240M
NJM2240M (TE2)

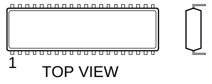


8pin SOP

L7812CV
LM2940CT-5.0
NJM78M05FA
PQ09RF2

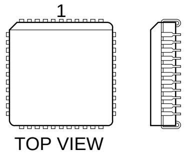


MCZ3001D
PA0053B



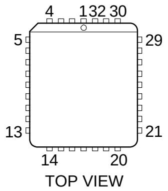
18pin DIP

MSP3410D-C5-PS-B4
MSP3411G-PS-B8
SDA5273-3CP-C55-22-GEG

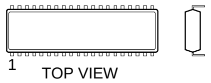


68pin QFJ

M27C2001-12C1-PZ01
M27C2001-12C1-RR403

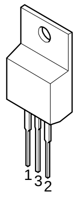

4
1
32
30
5
29
13
21
14
20
TOP VIEW

NJM4560D
RC4560D
TDA2822M
TDA7264
TOP209P

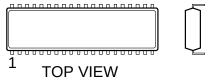


8pin DIP

NJM79M05FA

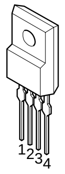


PM0011AS

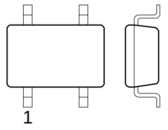


42pin DIP

PQ05RF11

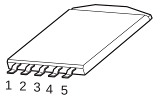


PST593C-MMP-4P

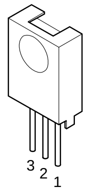


4pin CHIP

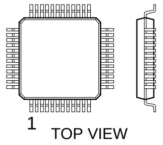
PST9143NL



SBX3081-51(20)
SBX3081-51(30)

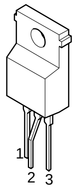


SDA30C263-GEG

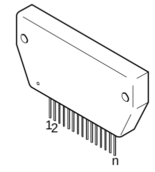


80pin QFP

SE135N
SE135N-LF12

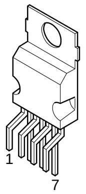


STK392-150

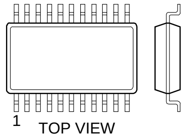

12
n
MARKING SIDE VIEW

n=18pin

STV9379

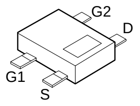


TDA8395T/N3

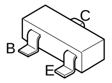


20pin SOP

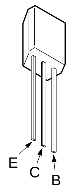
BSS83



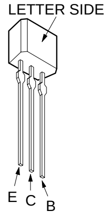
DTA144EKA-T146
DTC143TKA-T146
DTC144EKA
DTC144EKA-T146
2SA1037AK-T146-QR
2SA1037AK-T146-R
2SC1623-L5L6
2SC2412K-T-146-QR



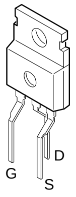
DTC144ESA-TP
2SD2144S-TP-UVW
2SD2144S-UVW



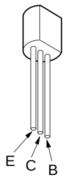
DTC144ESA
2SA1175-HFE
2SA1309A-QRSTA
2SC3311A-QRSTA


LETTER SIDE
E
C
B

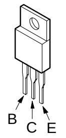
SPA07N60C2



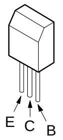
2SA1091-O
2SA1091O-TPE2
2SA1208
2SA1208T-TP



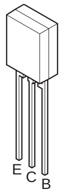
2SA1837(LBS2SONY)
2SC4634LS-CB11
2SC4793(LBS2SONY)
2SC5022-02



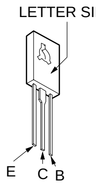
2SB734-34
2SB734-T-2



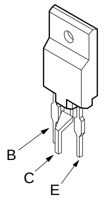
2SC2611-15



2SC2688-LK


LETTER SIDE
E
C
B

2SD2539(LBSONY-1)



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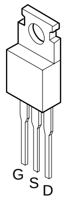

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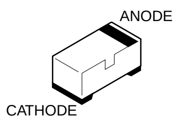
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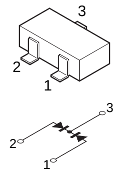

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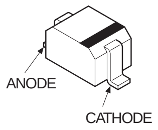
UDZSTE-179.1B
1SS355TE-17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EL1Z-V1
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GP08DPKG23
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MTZJ-T-77-9.1A
MTZJ-T-77-9.1C
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RGP10GPKG23
S2L40F
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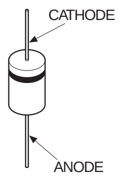
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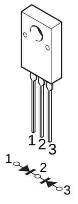

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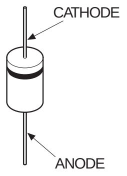
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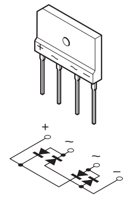
RBV-406B



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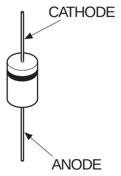
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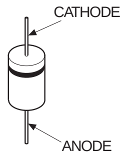
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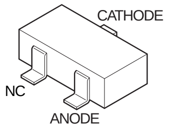
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MTZJ-T-77-13
MTZJ-T-77-13B
MTZJ-T-77-22
MTZJ-T-77-3.6
MTZJ-T-77-5.1
MTZJ-T-77-5.1B
MTZJ-T-77-5.6
MTZJ-T-77-6.8B
MTZJ-T-77-7.5B
MTZJ-T-77-9.1
RD3.0ES-T1B2
RD3.0ESB2
RD3.6ESB1
RD4.7ES-T1B
RD4.7ESB2
RD5.1ESB1
RD5.1ESB2
RD5.6ESB2
RD6.8ES-B2
RD9.1ES-B3
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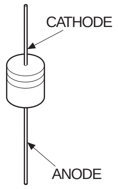
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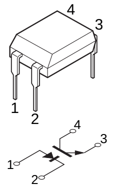

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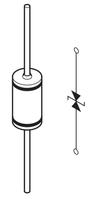

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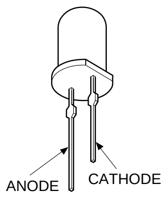

ANODE
CATHODE

SECTION 8

EXPLODED VIEWS

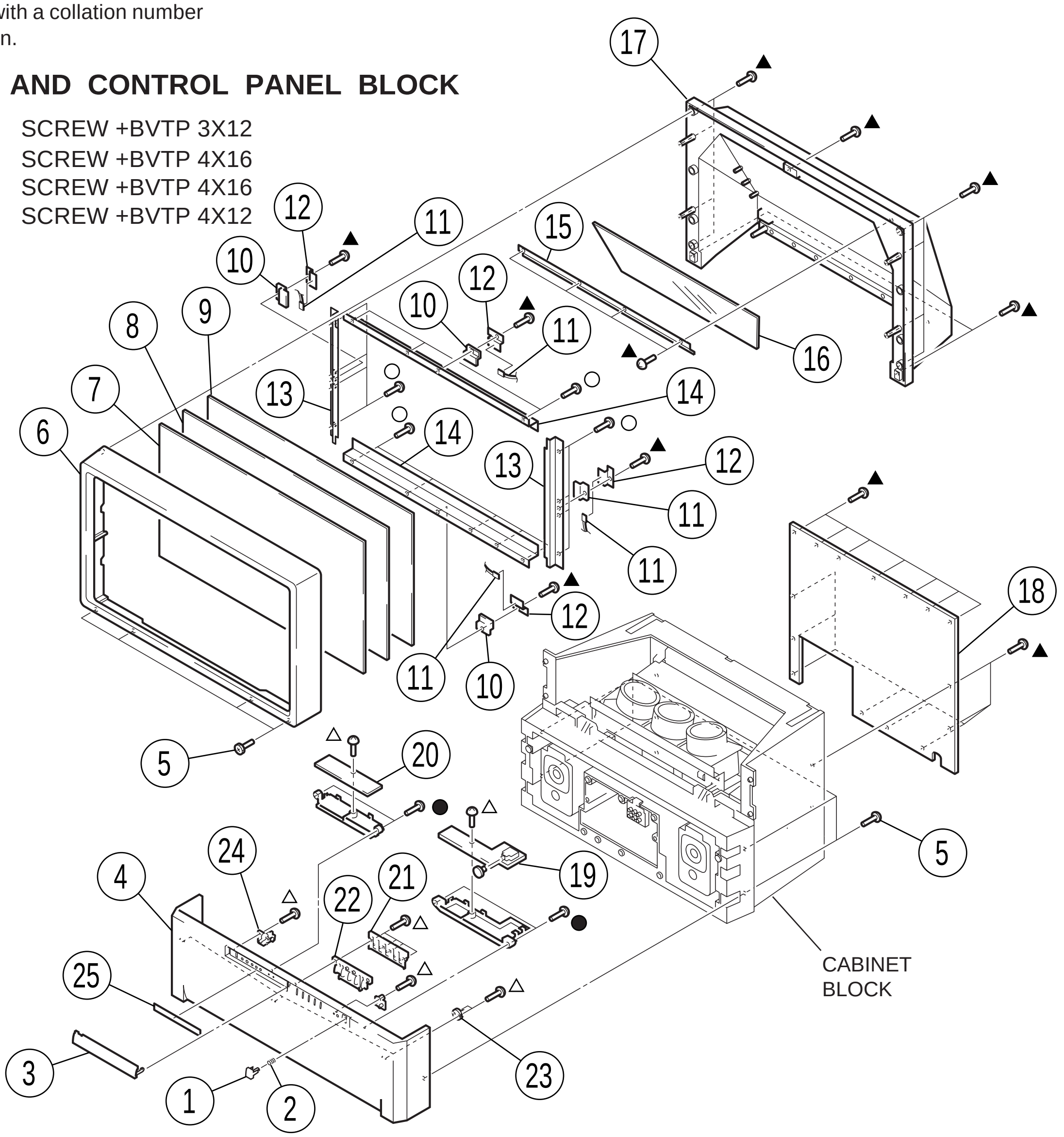
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

8-1. SCREEN AND CONTROL PANEL BLOCK

△ : 7-685-648-71 SCREW +BVTP 3X12
● : 7-685-663-71 SCREW +BVTP 4X16
▲ : 7-685-663-79 SCREW +BVTP 4X16
○ : 7-685-661-79 SCREW +BVTP 4X12

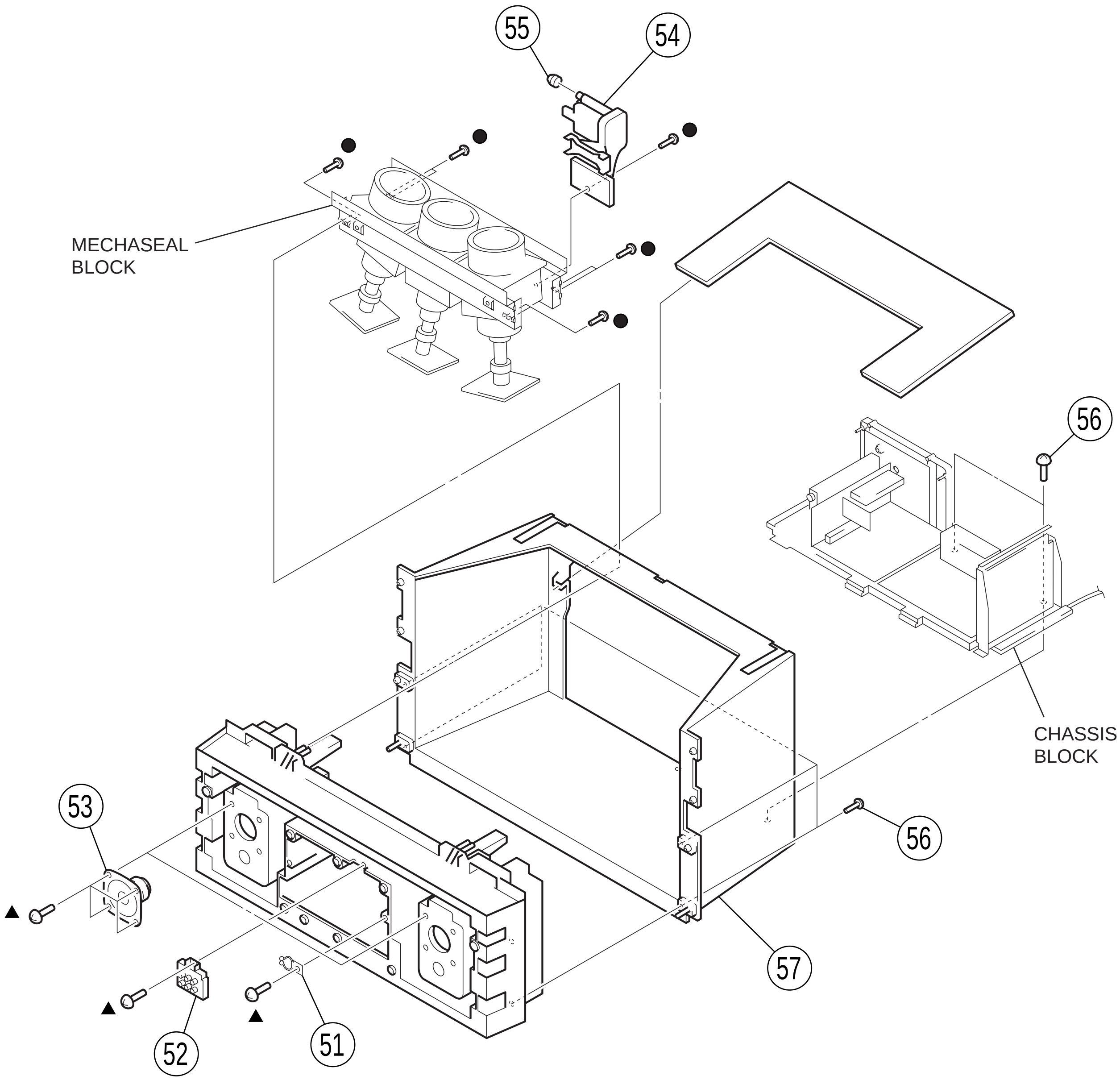


REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-206-033-01	BUTTON POWER	
2	4-202-964-01	SPRING	
3	4-206-036-01	DOOR, CONTROL	
4	X-4200-708-1	GRILLE ASSY, SPEAKER	
5	4-378-522-31	SCREW, TAPPING, HEXAGON	
6	X-4200-706-1	BEZNET ASSY	
7	4-063-365-11	SCREEN, CONTRAST	
8	4-070-236-11	PLATE (L), DIFFUSION	
9	4-070-358-11	PLATE (F), DIFFUSION	
10	* 4-205-155-01	COVER, SENSOR	
11	1-528-864-12	BATTERY, SOLAR	
12	* 4-066-132-01	HOLDER, SENSOR	
13	* 4-066-126-01	HOLDER (V), SCREEN	
14	* 4-063-160-01	HOLDER (H), SCREEN	
15	* 4-066-129-01	HOLDER, MIRROR	
16	4-206-414-01	MIRROR (41)	
17	* 4-062-540-11	COVER, MIRROR	
18	* 4-063-177-01	BOARD (41), REAR	
19	* A-1646-237-A	H1 BOARD, COMPLETE	
20	* A-1646-238-A	H2 BOARD, COMPLETE	
21	4-206-034-01	BUTTON, MULTI	
22	4-206-035-01	COVER, MULTI BUTTON	
23	4-054-709-01	STRIKE	
24	4-076-673-03	DAMPER, DOOR	
25	4-206-030-01	LABEL CONTROL	

8-2. CABINET BLOCK

● : 7-685-663-71 SCREW +BVTP 4X16
▲ : 7-685-663-79 SCREW +BVTP 4X16

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

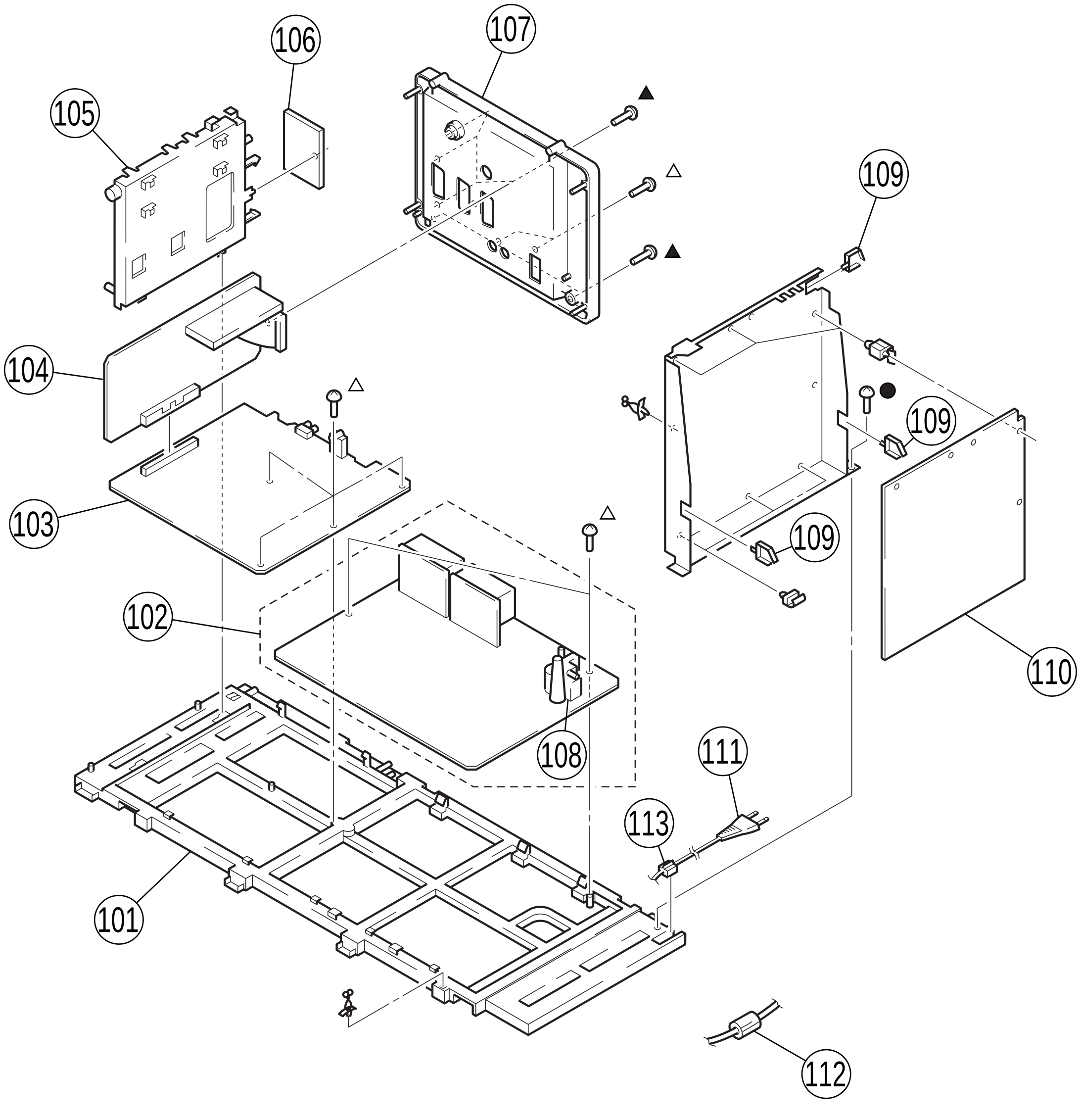


REF.NO.	PART NO.	DESCRIPTION	REMARK
51	* 4-063-176-01	HOLDER, HVR	
52	⚠ 1-223-925-71	RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)	
53	1-505-426-11	SPEAKER (10.6 CM)	
54	⚠ 8-598-955-13	BLOCK ASSY, HIGH-VOLTAGE	
55	4-373-137-02	CAP (Z), RUBBER	
56	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
57	4-062-539-11	CABINET (REAR)	

8-3. MAIN BRACKET BLOCK

△ : 7-685-648-71 SCREW +BVTP 3X12
● : 7-685-663-71 SCREW +BVTP 4X16
▲ : 7-685-663-79 SCREW +BVTP 4X16

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.



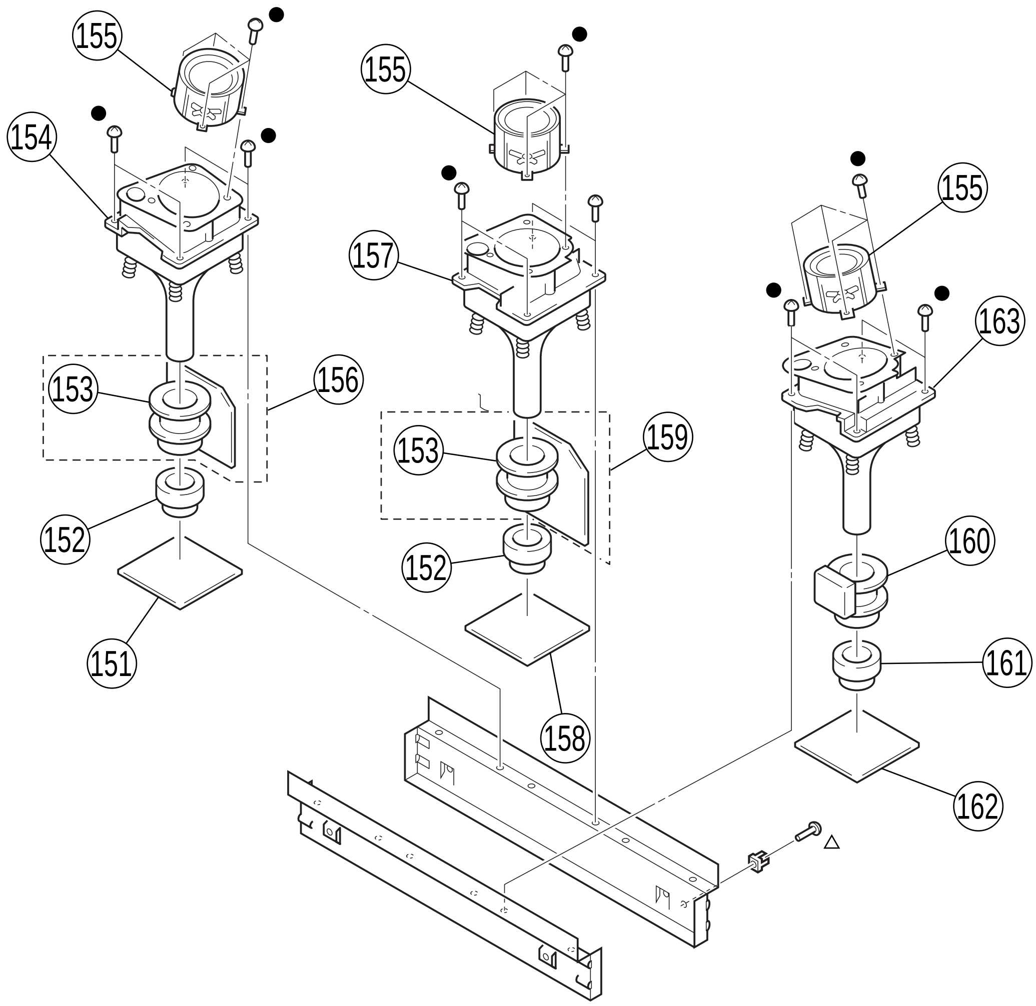
REF.NO.	PART NO.	DESCRIPTION	REMARK
101	* 4-062-537-03	BRACKET, MAIN	
102	* A-1642-288-A	E BOARD, COMPLETE	108
103	* A-1346-678-A	D BOARD, COMPLETE (41PX1R)	
103	* A-1642-284-A	D BOARD, COMPLETE (41PX1/41PX1K)	
104	* A-1632-921-A	A BOARD, COMPLETE (41PX1/41PX1K)	
104	* A-1632-959-A	AE BOARD, COMPLETE (41PX1R)	
105	* 4-062-536-02	BRACKET (A)	
106	* A-1648-033-A	U BOARD, COMPLETE (41PX1/41PX1K)	
106	* A-1648-034-A	UE BOARD, COMPLETE (41PX1R)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
107	4-063-178-01	BOARD (EURO), TERMINAL	
108	⚠ 1-453-331-21	TRANSFORMER ASSY, FLYBACK	(NX-4010//M3P4)
109	* 4-316-015-02	HOLDER, WIRE	
110	* A-1637-023-A	G BOARD, COMPLETE	
111	⚠ 1-765-286-11	CORD, POWER	
112	1-543-653-21	CORE ASSY, BEAD (DIVISION TYPE)	
113	4-022-115-00	HOLDER, AC CORD	

8-4. MECHASEAL BLOCK

△ : 7-685-648-71 SCREW +BVTP 3X12
● : 7-685-663-71 SCREW +BVTP 4X16

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.



REF.NO.	PART NO.	DESCRIPTION	REMARK
151	* A-1638-152-A	CR BOARD, COMPLETE	
152	⚠ 1-452-790-41	NECK ASSY	
153	⚠ 1-451-517-31	DEFLECTION YOKE	
154	⚠ A-1501-213-A	MECHASEAL ASSY (R), SLANT	
155	4-056-258-11	LENS (DELTA 78)	
156	* A-1652-079-A	ZR BOARD, COMPLETE	153
157	⚠ A-1501-214-A	MECHASEAL ASSY (G), SLANT	
158	* A-1638-151-A	CG BOARD, COMPLETE	
159	* A-1652-078-A	ZG BOARD, COMPLETE	153
160	⚠ 1-451-517-21	DEFLECTION YOKE	
161	⚠ 1-452-790-31	NECK ASSY	
162	* A-1638-150-A	CB BOARD, COMPLETE	
163	⚠ A-1501-215-A	MECHASEAL ASSY (B), SLANT	

SECTION 9

ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- CAPACITORS
  PF : µµF

- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION				REMARK
	* A-1632-921-A	A BOARD, COMPLETE (41PX1/41PX1K)				
		****************************				
	<CAPACITOR>					
C1	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C2	1-104-660-91	ELECT	47µF	20%	16V	
C3	1-162-921-11	CERAMIC CHIP	33pF	5%	50V	
C4	1-162-921-11	CERAMIC CHIP	33pF	5%	50V	
C8	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C15	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	
C18	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C19	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V	
C20	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C21	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C22	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C24	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V	
C25	1-104-660-91	ELECT	47µF	20%	16V	
C26	1-104-660-91	ELECT	47µF	20%	16V	
C28	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C29	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V	
C45	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C90	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C101	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C102	1-126-934-11	ELECT	220µF	20%	16V	
C103	1-126-965-91	ELECT	22µF	20%	50V	
C104	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C105	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C106	1-126-933-11	ELECT	100µF	20%	16V	
C107	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C108	1-126-933-11	ELECT	100µF	20%	16V	
C109	1-164-227-11	CERAMIC CHIP	0.022µF	10%	25V	
C110	1-104-660-91	ELECT	47µF	20%	16V	
C111	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C112	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V	
C113	1-104-660-91	ELECT	47µF	20%	16V	
C114	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C115	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C116	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V	
C117	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C118	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C119	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C120	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C121	1-162-925-11	CERAMIC CHIP	68pF	5%	50V	
C122	1-115-412-11	CERAMIC CHIP	680pF	5%	25V	
C123	1-162-925-11	CERAMIC CHIP	68pF	5%	50V	
C124	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C125	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C126	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C127	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C128	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C129	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C130	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C131	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C132	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C133	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C134	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C136	1-126-964-11	ELECT	10µF	20%	50V	
C137	1-104-660-91	ELECT	47µF	20%	16V	
C138	1-126-964-11	ELECT	10µF	20%	50V	
C139	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C140	1-126-964-11	ELECT	10µF	20%	50V	
C141	1-126-934-11	ELECT	220µF	20%	16V	
C142	1-162-926-11	CERAMIC CHIP	82pF	5%	50V	
C143	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C144	1-164-217-11	CERAMIC CHIP	150pF	5%	50V	
C145	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	
C146	1-164-360-11	CERAMIC CHIP	0.1µF	10%	16V	
C147	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V	
C148	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C201	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C202	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C203	1-104-661-91	ELECT	330µF	20%	16V	
C204	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C205	1-126-965-91	ELECT	22µF	20%	50V	
C207	1-126-964-11	ELECT	10µF	20%	50V	
C208	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C209	1-216-864-11	SHORT	0			
C210	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C211	1-126-965-91	ELECT	22µF	20%	50V	
C212	1-164-360-11	CERAMIC CHIP	0.1µF	10%	16V	
C213	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C214	1-164-360-11	CERAMIC CHIP	0.1µF	10%	16V	
C215	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C216	1-104-660-91	ELECT	47µF	20%	16V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C217	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C218	1-104-660-91	ELECT	47μF	20%	16V	
C219	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C220	1-126-933-11	ELECT	100μF	20%	16V	
C221	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	
C222	1-164-360-11	CERAMIC CHIP	0.1μF	10%	16V	
C223	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C224	1-164-360-11	CERAMIC CHIP	0.1μF	10%	16V	
C225	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C226	1-104-660-91	ELECT	47μF	20%	16V	
C227	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C228	1-104-660-91	ELECT	47μF	20%	16V	
C229	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C230	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C232	1-216-864-11	SHORT	0			
C236	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C237	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	
C240	1-126-933-11	ELECT	100μF	20%	16V	
C241	1-104-660-91	ELECT	47μF	20%	16V	
C242	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C243	1-126-967-11	ELECT	47μF	20%	50V	
C244	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C245	1-126-963-11	ELECT	4.7μF	20%	50V	
C246	1-104-660-91	ELECT	47μF	20%	16V	
C247	1-104-660-91	ELECT	47μF	20%	16V	
C248	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C249	1-115-156-11	CERAMIC CHIP	1μF		10V	
C250	1-115-156-11	CERAMIC CHIP	1μF		10V	
C251	1-162-909-11	CERAMIC CHIP	4pF	0.25pF	50V	
C252	1-162-909-11	CERAMIC CHIP	4pF	0.25pF	50V	
C253	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C254	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	
C255	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C256	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C257	1-126-965-91	ELECT	22μF	20%	50V	
C258	1-126-964-11	ELECT	10μF	20%	50V	
C259	1-113-619-11	CERAMIC CHIP	0.47μF		10V	
C260	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C261	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	
C262	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	
C263	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C264	1-126-962-11	ELECT	3.3μF	20%	50V	
C265	1-126-964-11	ELECT	10μF	20%	50V	
C266	1-126-964-11	ELECT	10μF	20%	50V	
C267	1-126-965-91	ELECT	22μF	20%	50V	
C268	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C269	1-164-392-11	CERAMIC CHIP	390pF	5%	50V	
C270	1-164-392-11	CERAMIC CHIP	390pF	5%	50V	
C271	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	
C272	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	
C273	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	
C274	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	
C275	1-115-156-11	CERAMIC CHIP	1μF		10V	
C276	1-115-156-11	CERAMIC CHIP	1μF		10V	
C277	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	
C278	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C279	1-126-965-91	ELECT	22μF	20%	50V	
C280	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C281	1-126-965-91	ELECT	22μF	20%	50V	
C282	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C283	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C284	1-126-935-11	ELECT	470μF	20%	10V	
C300	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C301	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C302	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	
C303	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	
C304	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C305	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C306	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C307	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C308	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C309	1-115-156-11	CERAMIC CHIP	1μF		10V	
C310	1-115-156-11	CERAMIC CHIP	1μF		10V	
C311	1-115-156-11	CERAMIC CHIP	1μF		10V	
C312	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	
C313	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	
C315	1-216-864-11	SHORT	0			
C316	1-162-921-11	CERAMIC CHIP	33pF	5%	50V	
C317	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C318	1-162-921-11	CERAMIC CHIP	33pF	5%	50V	
C320	1-126-965-91	ELECT	22μF	20%	50V	
C321	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C322	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C323	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C324	1-164-156-11	CERAMIC CHIP	0.1μF		25V	
C325	1-115-156-11	CERAMIC CHIP	1μF		10V	
C326	1-115-416-11	CERAMIC CHIP	0.001μF	5%	25V	
C327	1-137-374-11	MYLAR	0.047μF	5%	50V	
C328	1-126-965-91	ELECT	22μF	20%	50V	
C330	1-130-777-00	MYLAR	0.1μF	5%	63V	
C331	1-137-581-11	FILM	0.1μF	5%	100V	
C332	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C333	1-126-933-11	ELECT	100μF	20%	16V	
C334	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C335	1-113-619-11	CERAMIC CHIP	0.47μF		10V	
C336	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	
C337	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	
C338	1-126-962-11	ELECT	3.3μF	20%	50V	
C339	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	
C340	1-126-933-11	ELECT	100μF	20%	16V	
C341	1-113-619-11	CERAMIC CHIP	0.47μF		10V	
C342	1-115-156-11	CERAMIC CHIP	1μF		10V	
C343	1-162-968-11	CERAMIC CHIP	0.0047μF	10%	50V	
C344	1-162-927-11	CERAMIC CHIP	100pF	5%	50V	
C347	1-126-963-11	ELECT	4.7μF	20%	50V	
C348	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	
C349	1-162-921-11	CERAMIC CHIP	33pF	5%	50V	
C350	1-126-963-11	ELECT	4.7μF	20%	50V	
C351	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	
C352	1-113-619-11	CERAMIC CHIP	0.47μF		10V	
C353	1-135-834-91	CERAMIC CHIP	2.2μF		6.3V	
C354	1-113-619-11	CERAMIC CHIP	0.47μF		10V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C355	1-126-965-91	ELECT	22µF	20%	50V
C356	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C357	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C358	1-113-619-11	CERAMIC CHIP	0.47µF		10V
C359	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C360	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C361	1-162-921-11	CERAMIC CHIP	33pF	5%	50V
C362	1-162-921-11	CERAMIC CHIP	33pF	5%	50V
C370	1-135-834-91	CERAMIC CHIP	2.2µF		6.3V
C371	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C372	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C373	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C380	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1001	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1002	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1010	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1013	1-126-965-91	ELECT	22µF	20%	50V
C1014	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1015	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C1020	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C4017	1-162-922-11	CERAMIC CHIP	39pF	5%	50V
C4031	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C4032	1-126-964-11	ELECT	10µF	20%	50V
C4033	1-126-933-11	ELECT	100µF	20%	16V
C4035	1-126-964-11	ELECT	10µF	20%	50V
C4036	1-126-964-11	ELECT	10µF	20%	50V
C4038	1-126-964-11	ELECT	10µF	20%	50V
C4039	1-126-964-11	ELECT	10µF	20%	50V
C4040	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4041	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4042	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4043	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4044	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4045	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4046	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4047	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4048	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4055	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4056	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4057	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4058	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4059	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4060	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4061	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4062	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C4064	1-126-964-11	ELECT	10µF	20%	50V
C4066	1-126-959-11	ELECT	0.47µF	20%	50V
C4067	1-115-156-11	CERAMIC CHIP	1µF		10V
C4068	1-115-156-11	CERAMIC CHIP	1µF		10V
C4071	1-115-156-11	CERAMIC CHIP	1µF		10V
C4072	1-115-156-11	CERAMIC CHIP	1µF		10V
C4082	1-126-964-11	ELECT	10µF	20%	50V
C4088	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C4089	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C4090	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C4091	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C4101	1-164-217-11	CERAMIC CHIP	150pF	5%	50V
		<FILTER>			
CF120	1-409-327-00	TRAP, CERAMIC (6.5MHZ)			
		<CONNECTOR>			
CN1	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P			
CN6	* 1-564-516-11	PLUG, CONNECTOR 13P			
CN101	1-695-915-11	TAB (CONTACT)			
CN102	1-695-915-11	TAB (CONTACT)			
CN104	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN201	1-766-296-11	CONNECTOR, DUAL SCART (AV1, AV2 IN/OUT)			
CN301	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN4501	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN4502	* 1-564-510-11	PLUG, CONNECTOR 7P			
		<DIODE>			
D2	8-719-988-61	DIODE 1SS355TE-17			
D11	8-719-069-55	DIODE UDZSTE-175.6B			
D12	8-719-069-55	DIODE UDZSTE-175.6B			
D16	8-719-988-61	DIODE 1SS355TE-17			
D101	8-719-977-81	DIODE DTZ33B			
D102	8-719-988-61	DIODE 1SS355TE-17			
D201	8-719-069-60	DIODE UDZSTE-179.1B			
D202	8-719-069-60	DIODE UDZSTE-179.1B			
D203	8-719-069-60	DIODE UDZSTE-179.1B			
D204	8-719-069-60	DIODE UDZSTE-179.1B			
D205	8-719-069-60	DIODE UDZSTE-179.1B			
D206	8-719-069-60	DIODE UDZSTE-179.1B			
D207	8-719-069-60	DIODE UDZSTE-179.1B			
D208	8-719-069-60	DIODE UDZSTE-179.1B			
D209	8-719-069-60	DIODE UDZSTE-179.1B			
D210	8-719-069-60	DIODE UDZSTE-179.1B			
D211	8-719-069-60	DIODE UDZSTE-179.1B			
D212	8-719-069-60	DIODE UDZSTE-179.1B			
D213	8-719-069-60	DIODE UDZSTE-179.1B			
D214	8-719-069-60	DIODE UDZSTE-179.1B			
D215	8-719-069-60	DIODE UDZSTE-179.1B			
D216	8-719-069-55	DIODE UDZSTE-175.6B			
D217	8-719-069-55	DIODE UDZSTE-175.6B			
D218	8-719-069-55	DIODE UDZSTE-175.6B			
D220	8-719-988-61	DIODE 1SS355TE-17			
D221	8-719-988-61	DIODE 1SS355TE-17			
D222	8-719-069-55	DIODE UDZSTE-175.6B			
D223	8-719-069-60	DIODE UDZSTE-179.1B			
D224	8-719-069-60	DIODE UDZSTE-179.1B			
D225	8-719-069-60	DIODE UDZSTE-179.1B			
D226	8-719-069-60	DIODE UDZSTE-179.1B			
D251	8-719-047-16	DIODE BAS216			
D303	8-719-988-61	DIODE 1SS355TE-17			
D304	8-719-988-61	DIODE 1SS355TE-17			
D320	8-719-069-60	DIODE UDZSTE-179.1B			

REF.NO.	PART NO.	DESCRIPTION	REMARK
D370	8-719-047-16	DIODE BAS216	
D401	8-719-069-60	DIODE UDZSTE-179.1B	
D402	8-719-988-61	DIODE 1SS355TE-17	
D1010	8-719-036-58	DIODE MA3030-H (TX)	
D4004	8-719-069-60	DIODE UDZSTE-179.1B	
D4006	8-719-069-60	DIODE UDZSTE-179.1B	
D4007	8-719-069-60	DIODE UDZSTE-179.1B	
D4008	8-719-069-60	DIODE UDZSTE-179.1B	
D4009	8-719-069-60	DIODE UDZSTE-179.1B	
D4010	8-719-069-60	DIODE UDZSTE-179.1B	
D4011	8-719-069-55	DIODE UDZSTE-175.6B	
D4015	8-719-069-55	DIODE UDZSTE-175.6B	
	<FERRITE BEAD>		
FB101	1-414-235-22	FERRITE 0µH	
	<FILTER>		
FL101	1-236-071-11	ENCAPSULATED COMPONENT	
FL102	1-233-765-21	FILTER	
FL103	1-233-765-21	FILTER	
FL104	1-233-765-21	FILTER	
FL105	1-236-071-11	ENCAPSULATED COMPONENT	
FL106	1-236-071-11	ENCAPSULATED COMPONENT	
FL107	1-236-071-11	ENCAPSULATED COMPONENT	
FL108	1-236-071-11	ENCAPSULATED COMPONENT	
FL201	1-236-071-11	ENCAPSULATED COMPONENT	
FL202	1-236-071-11	ENCAPSULATED COMPONENT	
FL203	1-236-071-11	ENCAPSULATED COMPONENT	
FL1001	1-236-071-11	ENCAPSULATED COMPONENT	
	<IC>		
IC1	8-759-376-77	IC SDA30C263-GEG	
IC2	8-759-564-06	IC M24C32-MN6T	
IC3	1-750-797-12	SOCKET, PLCC	
IC4	8-759-394-57	IC PST593C-MMP-4P	
IC103	8-752-390-37	IC CXD2064Q-T6	
IC201	8-752-081-26	IC CXA2040AQ-T4	
IC202	6-700-412-01	IC MSP3411G-PS-B8	
IC204	8-759-008-67	IC MC14066BF	
IC205	8-759-394-57	IC PST593C-MMP-4P	
IC206	8-752-058-68	IC CXA1315M	
IC301	8-752-081-43	IC CXA2076Q-TL	
IC302	8-759-565-20	IC TDA4665T/V5-118	
IC303	8-759-430-79	IC TDA8395T/N3	
IC1001	8-759-584-20	IC SDA5273-3CP-C55-22-GEG	
IC4003	8-752-087-76	IC CXA2089Q-T6	
	<CHIP CONDUCTOR>		
JR1	1-216-864-11	SHORT 0	
JR2	1-216-296-11	SHORT 0	
JR3	1-216-296-11	SHORT 0	
JR6	1-216-864-11	SHORT 0	
JR201	1-216-864-11	SHORT 0	

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR205	1-216-295-91	SHORT 0	
JR206	1-216-295-91	SHORT 0	
JR207	1-216-295-91	SHORT 0	
JR208	1-216-296-11	SHORT 0	
JR209	1-216-295-91	SHORT 0	
JR211	1-216-295-91	SHORT 0	
JR212	1-216-295-91	SHORT 0	
JR301	1-216-295-91	SHORT 0	
JR303	1-216-296-11	SHORT 0	
JR304	1-216-296-11	SHORT 0	
JR305	1-216-296-11	SHORT 0	
JR360	1-216-295-91	SHORT 0	
JR362	1-216-295-91	SHORT 0	
JR1010	1-216-864-11	SHORT 0	
	<COIL>		
L101	1-410-993-42	INDUCTOR CHIP 1µH	
L102	1-410-506-11	INDUCTOR 5.6µH	
L103	1-412-009-31	INDUCTOR CHIP 18µH	
L120	1-408-602-31	INDUCTOR 8.2µH	
L121	1-414-177-11	INDUCTOR 1µH	
L122	1-408-602-31	INDUCTOR 8.2µH	
L201	1-414-187-11	INDUCTOR 47µH	
L202	1-412-002-31	INDUCTOR CHIP 4.7µH	
L203	1-412-002-31	INDUCTOR CHIP 4.7µH	
L204	1-412-002-31	INDUCTOR CHIP 4.7µH	
L205	1-412-002-31	INDUCTOR CHIP 4.7µH	
L206	1-412-002-31	INDUCTOR CHIP 4.7µH	
L207	1-216-864-11	SHORT 0	
L208	1-412-002-31	INDUCTOR CHIP 4.7µH	
L300	1-412-006-31	INDUCTOR CHIP 10µH	
L302	1-412-979-21	INDUCTOR 1µF	
L303	1-412-979-21	INDUCTOR 1µF	
L304	1-412-979-21	INDUCTOR 1µF	
L305	1-412-979-21	INDUCTOR 1µF	
	<TRANSISTOR>		
Q1	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q2	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q17	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q18	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q20	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q21	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q22	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q23	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q24	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q25	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q81	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q103	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q107	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q108	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q109	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q111	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q114	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q115	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q116	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q117	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q118	8-729-039-67	TRANSISTOR BSS83	
Q120	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q122	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q124	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q125	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q130	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q203	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q204	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q205	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q206	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q208	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q209	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q211	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q212	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q213	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q214	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q215	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q216	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q300	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q305	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q306	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q307	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q308	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q309	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q330	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q331	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q333	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q334	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q335	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q404	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q405	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1001	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1002	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q2412	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q2414	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4003	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4007	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R2	1-216-809-11	RES-CHIP	100	5%	1/16W	
R3	1-216-809-11	RES-CHIP	100	5%	1/16W	
R4	1-216-803-11	RES-CHIP	33	5%	1/16W	
R5	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W	
R7	1-216-817-11	RES-CHIP	470	5%	1/16W	
R9	1-216-817-11	RES-CHIP	470	5%	1/16W	
R20	1-216-809-11	RES-CHIP	100	5%	1/16W	
R21	1-216-809-11	RES-CHIP	100	5%	1/16W	
R24	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R25	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R28	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R29	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R30	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R31	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R32	1-216-809-11	RES-CHIP	100	5%	1/16W	
R33	1-216-809-11	RES-CHIP	100	5%	1/16W	
R34	1-216-809-11	RES-CHIP	100	5%	1/16W	
R35	1-216-809-11	RES-CHIP	100	5%	1/16W	
R39	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R46	1-216-844-11	RES-CHIP	82K	5%	1/16W	
R49	1-216-809-11	RES-CHIP	100	5%	1/16W	
R52	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R53	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R54	1-216-809-11	RES-CHIP	100	5%	1/16W	
R58	1-216-828-11	RES-CHIP	3.9K	5%	1/16W	
R59	1-216-809-11	RES-CHIP	100	5%	1/16W	
R60	1-216-809-11	RES-CHIP	100	5%	1/16W	
R61	1-216-809-11	RES-CHIP	100	5%	1/16W	
R62	1-216-809-11	RES-CHIP	100	5%	1/16W	
R63	1-216-809-11	RES-CHIP	100	5%	1/16W	
R64	1-216-809-11	RES-CHIP	100	5%	1/16W	
R65	1-216-809-11	RES-CHIP	100	5%	1/16W	
R66	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R67	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R68	1-216-809-11	RES-CHIP	100	5%	1/16W	
R69	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R70	1-216-809-11	RES-CHIP	100	5%	1/16W	
R71	1-216-809-11	RES-CHIP	100	5%	1/16W	
R72	1-216-809-11	RES-CHIP	100	5%	1/16W	
R73	1-216-809-11	RES-CHIP	100	5%	1/16W	
R74	1-216-809-11	RES-CHIP	100	5%	1/16W	
R76	1-216-809-11	RES-CHIP	100	5%	1/16W	
R78	1-216-809-11	RES-CHIP	100	5%	1/16W	
R79	1-216-813-11	RES-CHIP	220	5%	1/16W	
R80	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R83	1-216-809-11	RES-CHIP	100	5%	1/16W	
R84	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R85	1-216-843-11	RES-CHIP	68K	5%	1/16W	
R86	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R87	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R88	1-216-809-11	RES-CHIP	100	5%	1/16W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R91	1-216-809-11	RES-CHIP	100	5%	1/16W	
R92	1-216-809-11	RES-CHIP	100	5%	1/16W	
R93	1-216-813-11	RES-CHIP	220	5%	1/16W	
R94	1-216-813-11	RES-CHIP	220	5%	1/16W	
R95	1-216-813-11	RES-CHIP	220	5%	1/16W	
R97	1-216-809-11	RES-CHIP	100	5%	1/16W	
R100	1-216-813-11	RES-CHIP	220	5%	1/16W	
R101	1-216-864-11	SHORT	0			
R102	1-216-809-11	RES-CHIP	100	5%	1/16W	
R103	1-216-809-11	RES-CHIP	100	5%	1/16W	
R104	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R105	1-216-853-11	RES-CHIP	470K	5%	1/16W	
R106	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R107	1-216-818-11	RES-CHIP	560	5%	1/16W	
R108	1-216-842-11	RES-CHIP	56K	5%	1/16W	
R109	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R110	1-216-832-11	RES-CHIP	8.2K	5%	1/16W	
R111	1-216-811-11	RES-CHIP	150	5%	1/16W	
R112	1-216-811-11	RES-CHIP	150	5%	1/16W	
R113	1-216-797-11	RES-CHIP	10	5%	1/16W	
R114	1-216-811-11	RES-CHIP	150	5%	1/16W	
R115	1-216-815-11	RES-CHIP	330	5%	1/16W	
R116	1-216-817-11	RES-CHIP	470	5%	1/16W	
R117	1-216-831-11	RES-CHIP	6.8K	5%	1/16W	
R118	1-216-805-11	RES-CHIP	47	5%	1/16W	
R119	1-216-834-11	RES-CHIP	12K	5%	1/16W	
R120	1-216-831-11	RES-CHIP	6.8K	5%	1/16W	
R121	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R122	1-216-817-11	RES-CHIP	470	5%	1/16W	
R123	1-216-812-11	RES-CHIP	180	5%	1/16W	
R124	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R125	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R126	1-216-809-11	RES-CHIP	100	5%	1/16W	
R127	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R128	1-216-814-11	RES-CHIP	270	5%	1/16W	
R129	1-216-815-11	RES-CHIP	330	5%	1/16W	
R130	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	
R131	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R132	1-216-809-11	RES-CHIP	100	5%	1/16W	
R133	1-216-817-11	RES-CHIP	470	5%	1/16W	
R134	1-216-797-11	RES-CHIP	10	5%	1/16W	
R135	1-216-819-11	RES-CHIP	680	5%	1/16W	
R136	1-216-813-11	RES-CHIP	220	5%	1/16W	
R137	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R138	1-216-817-11	RES-CHIP	470	5%	1/16W	
R139	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R140	1-216-817-11	RES-CHIP	470	5%	1/16W	
R141	1-216-820-11	RES-CHIP	820	5%	1/16W	
R142	1-216-864-11	SHORT	0			
R144	1-216-822-11	RES-CHIP	1.2K	5%	1/16W	
R145	1-216-809-11	RES-CHIP	100	5%	1/16W	
R146	1-216-809-11	RES-CHIP	100	5%	1/16W	
R147	1-216-809-11	RES-CHIP	100	5%	1/16W	
R148	1-216-809-11	RES-CHIP	100	5%	1/16W	
R149	1-216-809-11	RES-CHIP	100	5%	1/16W	
R150	1-216-809-11	RES-CHIP	100	5%	1/16W	
R151	1-216-809-11	RES-CHIP	100	5%	1/16W	
R152	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	
R153	1-216-809-11	RES-CHIP	100	5%	1/16W	
R154	1-216-864-11	SHORT	0			
R157	1-216-864-11	SHORT	0			
R160	1-216-864-11	SHORT	0			
R161	1-208-794-11	METAL CHIP	3.3K	0.5%	1/10W	
R162	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W	
R163	1-216-813-11	RES-CHIP	220	5%	1/16W	
R164	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R165	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R166	1-216-813-11	RES-CHIP	220	5%	1/16W	
R167	1-216-818-11	RES-CHIP	560	5%	1/16W	
R168	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R169	1-216-813-11	RES-CHIP	220	5%	1/16W	
R170	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W	
R171	1-216-809-11	RES-CHIP	100	5%	1/16W	
R172	1-216-813-11	RES-CHIP	220	5%	1/16W	
R174	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R175	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R176	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R177	1-208-811-11	METAL CHIP	16K	0.5%	1/10W	
R178	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R179	1-216-817-11	RES-CHIP	470	5%	1/16W	
R180	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R181	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R182	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R183	1-208-770-11	METAL CHIP	330	0.5%	1/10W	
R184	1-216-817-11	RES-CHIP	470	5%	1/16W	
R185	1-216-818-11	RES-CHIP	560	5%	1/16W	
R186	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R187	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R188	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R189	1-216-818-11	RES-CHIP	560	5%	1/16W	
R190	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R191	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R192	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R193	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R194	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R195	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R196	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R197	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R198	1-216-813-11	RES-CHIP	220	5%	1/16W	
R199	1-208-764-11	METAL CHIP	180	0.5%	1/10W	
R200	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R201	1-216-864-11	SHORT	0			
R202	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R203	1-216-809-11	RES-CHIP	100	5%	1/16W	
R204	1-216-809-11	RES-CHIP	100	5%	1/16W	
R205	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R206	1-216-813-11	RES-CHIP	220	5%	1/16W	
R207	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R208	1-216-819-11	RES-CHIP	680	5%	1/16W	
R209	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R211	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R212	1-218-285-11	RES-CHIP	75	5%	1/16W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R213	1-218-285-11	RES-CHIP	75	5%	1/16W	
R214	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R216	1-216-809-11	RES-CHIP	100	5%	1/16W	
R217	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R218	1-216-809-11	RES-CHIP	100	5%	1/16W	
R219	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R220	1-216-864-11	SHORT	0			
R221	1-216-816-11	RES-CHIP	390	5%	1/16W	
R222	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R223	1-216-864-11	SHORT	0			
R224	1-216-816-11	RES-CHIP	390	5%	1/16W	
R225	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R226	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R227	1-216-808-11	RES-CHIP	82	5%	1/16W	
R228	1-218-285-11	RES-CHIP	75	5%	1/16W	
R229	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R230	1-216-808-11	RES-CHIP	82	5%	1/16W	
R232	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R233	1-216-809-11	RES-CHIP	100	5%	1/16W	
R234	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R235	1-216-809-11	RES-CHIP	100	5%	1/16W	
R236	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R237	1-216-864-11	SHORT	0			
R238	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R239	1-216-816-11	RES-CHIP	390	5%	1/16W	
R240	1-216-864-11	SHORT	0			
R241	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R242	1-216-816-11	RES-CHIP	390	5%	1/16W	
R243	1-216-864-11	SHORT	0			
R244	1-216-817-11	RES-CHIP	470	5%	1/16W	
R245	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R247	1-216-817-11	RES-CHIP	470	5%	1/16W	
R248	1-216-809-11	RES-CHIP	100	5%	1/16W	
R250	1-216-864-11	SHORT	0			
R251	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R252	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R253	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R254	1-216-817-11	RES-CHIP	470	5%	1/16W	
R255	1-216-809-11	RES-CHIP	100	5%	1/16W	
R256	1-216-809-11	RES-CHIP	100	5%	1/16W	
R257	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R258	1-216-817-11	RES-CHIP	470	5%	1/16W	
R259	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	
R260	1-216-813-11	RES-CHIP	220	5%	1/16W	
R261	1-216-817-11	RES-CHIP	470	5%	1/16W	
R262	1-216-809-11	RES-CHIP	100	5%	1/16W	
R263	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R264	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R265	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R266	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R267	1-216-838-11	RES-CHIP	27K	5%	1/16W	
R268	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R269	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R270	1-218-285-11	RES-CHIP	75	5%	1/16W	
R271	1-218-285-11	RES-CHIP	75	5%	1/16W	
R272	1-218-285-11	RES-CHIP	75	5%	1/16W	
R273	1-218-285-11	RES-CHIP	75	5%	1/16W	
R274	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R280	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R281	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R282	1-216-843-11	RES-CHIP	68K	5%	1/16W	
R283	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R284	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R285	1-216-843-11	RES-CHIP	68K	5%	1/16W	
R286	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R287	1-216-817-11	RES-CHIP	470	5%	1/16W	
R288	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R289	1-216-813-11	RES-CHIP	220	5%	1/16W	
R290	1-216-813-11	RES-CHIP	220	5%	1/16W	
R291	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R292	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R295	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R296	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R297	1-216-813-11	RES-CHIP	220	5%	1/16W	
R298	1-216-813-11	RES-CHIP	220	5%	1/16W	
R300	1-216-809-11	RES-CHIP	100	5%	1/16W	
R301	1-216-813-11	RES-CHIP	220	5%	1/16W	
R302	1-216-864-11	SHORT	0			
R303	1-216-864-11	SHORT	0			
R304	1-216-861-11	RES-CHIP	2.2M	5%	1/16W	
R305	1-216-813-11	RES-CHIP	220	5%	1/16W	
R308	1-216-809-11	RES-CHIP	100	5%	1/16W	
R309	1-216-813-11	RES-CHIP	220	5%	1/16W	
R310	1-216-813-11	RES-CHIP	220	5%	1/16W	
R312	1-216-864-11	SHORT	0			
R314	1-216-864-11	SHORT	0			
R315	1-216-864-11	SHORT	0			
R316	1-216-813-11	RES-CHIP	220	5%	1/16W	
R317	1-216-813-11	RES-CHIP	220	5%	1/16W	
R320	1-216-809-11	RES-CHIP	100	5%	1/16W	
R321	1-216-809-11	RES-CHIP	100	5%	1/16W	
R322	1-216-809-11	RES-CHIP	100	5%	1/16W	
R323	1-216-813-11	RES-CHIP	220	5%	1/16W	
R325	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R326	1-216-809-11	RES-CHIP	100	5%	1/16W	
R327	1-216-809-11	RES-CHIP	100	5%	1/16W	
R329	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R330	1-216-809-11	RES-CHIP	100	5%	1/16W	
R331	1-216-826-11	RES-CHIP	2.7K	5%	1/16W	
R332	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R333	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R334	1-216-817-11	RES-CHIP	470	5%	1/16W	
R335	1-208-806-11	METAL CHIP	10K	0.5%	1/10W	
R336	1-216-851-11	RES-CHIP	330K	5%	1/16W	
R337	1-216-809-11	RES-CHIP	100	5%	1/16W	
R338	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R339	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R340	1-216-809-11	RES-CHIP	100	5%	1/16W	
R341	1-216-809-11	RES-CHIP	100	5%	1/16W	
R342	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R343	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R345	1-216-864-11	SHORT	0		
R347	1-216-809-11	RES-CHIP	100	5%	1/16W
R348	1-216-809-11	RES-CHIP	100	5%	1/16W
R349	1-216-809-11	RES-CHIP	100	5%	1/16W
R350	1-216-817-11	RES-CHIP	470	5%	1/16W
R351	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R352	1-216-835-11	RES-CHIP	15K	5%	1/16W
R353	1-216-821-11	RES-CHIP	1K	5%	1/16W
R354	1-216-864-11	SHORT	0		
R355	1-216-843-11	RES-CHIP	68K	5%	1/16W
R356	1-216-863-11	RES-CHIP	3.3M	5%	1/16W
R359	1-216-864-11	SHORT	0		
R360	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R361	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R362	1-216-821-11	RES-CHIP	1K	5%	1/16W
R364	1-216-821-11	RES-CHIP	1K	5%	1/16W
R366	1-216-833-11	RES-CHIP	10K	5%	1/16W
R367	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R368	1-216-809-11	RES-CHIP	100	5%	1/16W
R370	1-216-864-11	SHORT	0		
R392	1-216-821-11	RES-CHIP	1K	5%	1/16W
R393	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R394	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R395	1-216-864-11	SHORT	0		
R401	1-216-813-11	RES-CHIP	220	5%	1/16W
R402	1-216-833-11	RES-CHIP	10K	5%	1/16W
R403	1-216-837-11	RES-CHIP	22K	5%	1/16W
R404	1-216-838-11	RES-CHIP	27K	5%	1/16W
R405	1-216-833-11	RES-CHIP	10K	5%	1/16W
R406	1-216-833-11	RES-CHIP	10K	5%	1/16W
R407	1-216-833-11	RES-CHIP	10K	5%	1/16W
R408	1-216-821-11	RES-CHIP	1K	5%	1/16W
R409	1-216-821-11	RES-CHIP	1K	5%	1/16W
R410	1-216-837-11	RES-CHIP	22K	5%	1/16W
R411	1-216-837-11	RES-CHIP	22K	5%	1/16W
R1001	1-216-809-11	RES-CHIP	100	5%	1/16W
R1002	1-216-809-11	RES-CHIP	100	5%	1/16W
R1010	1-216-864-11	SHORT	0		
R1012	1-216-817-11	RES-CHIP	470	5%	1/16W
R1014	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R1017	1-216-864-11	SHORT	0		
R1020	1-216-845-11	RES-CHIP	100K	5%	1/16W
R1021	1-216-811-11	RES-CHIP	150	5%	1/16W
R1022	1-216-811-11	RES-CHIP	150	5%	1/16W
R1023	1-216-811-11	RES-CHIP	150	5%	1/16W
R1024	1-216-819-11	RES-CHIP	680	5%	1/16W
R1026	1-216-809-11	RES-CHIP	100	5%	1/16W
R1027	1-216-809-11	RES-CHIP	100	5%	1/16W
R1028	1-216-809-11	RES-CHIP	100	5%	1/16W
R2436	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2437	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2438	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2914	1-216-809-11	RES-CHIP	100	5%	1/16W
R2915	1-216-809-11	RES-CHIP	100	5%	1/16W
R4003	1-218-285-11	RES-CHIP	75	5%	1/16W
R4011	1-216-809-11	RES-CHIP	100	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R4029	1-216-833-11	RES-CHIP	10K	5%	1/16W
R4030	1-216-833-11	RES-CHIP	10K	5%	1/16W
R4032	1-216-833-11	RES-CHIP	10K	5%	1/16W
R4047	1-216-833-11	RES-CHIP	10K	5%	1/16W
R4052	1-216-864-11	SHORT	0		
R4053	1-216-864-11	SHORT	0		
R4054	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R4055	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R4058	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R4059	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R4065	1-216-864-11	SHORT	0		
R4066	1-216-864-11	SHORT	0		
R4067	1-216-864-11	SHORT	0		
R4073	1-216-837-11	RES-CHIP	22K	5%	1/16W
R4075	1-216-817-11	RES-CHIP	470	5%	1/16W
R4078	1-216-837-11	RES-CHIP	22K	5%	1/16W
R4084	1-216-833-11	RES-CHIP	10K	5%	1/16W
R4087	1-216-807-11	RES-CHIP	68	5%	1/16W
R4088	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R4089	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R4105	1-216-813-11	RES-CHIP	220	5%	1/16W
R4106	1-216-809-11	RES-CHIP	100	5%	1/16W
R4107	1-216-809-11	RES-CHIP	100	5%	1/16W
R4108	1-216-813-11	RES-CHIP	220	5%	1/16W
R4111	1-216-821-11	RES-CHIP	1K	5%	1/16W

<TUNER>

TU101 ⚠	8-598-535-10	FRONTEND BTF-EF411			

<CRYSTAL>

X1	1-767-154-21	VIBRATOR, CERAMIC (11.5MHz)			
X201	1-781-148-21	VIBRATOR, CRYSTAL (18.432MHz)			
X301	1-567-504-11	OSCILLATOR, CRYSTAL (4.43MHz)			
X302	1-567-505-11	OSCILLATOR, CRYSTAL (3.58MHz)			
X303	1-767-127-11	VIBRATOR, CERAMIC (503.5kHz)			
X1001	1-760-551-21	VIBRATOR, CERAMIC (20.48MHz)			

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* A-1632-959-A AE BOARD, COMPLETE (41PX1R)
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1-750-797-12 SOCKET, PLCC

<CAPACITOR>

C1	1-163-038-00	CERAMIC CHIP	0.1μF		25V
C2	1-126-947-11	ELECT	47μF	20%	16V
C3	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C4	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C8	1-163-038-00	CERAMIC CHIP	0.1μF		25V
C10	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C11	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C14	1-163-038-00	CERAMIC CHIP	0.1μF		25V
C15	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C18	1-163-038-00	CERAMIC CHIP	0.1μF		25V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C19	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V	
C20	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C21	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C22	1-163-251-11	CERAMIC CHIP	100pF	5%	50V	
C24	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V	
C25	1-126-947-11	ELECT	47µF	20%	16V	
C26	1-126-947-11	ELECT	47µF	20%	16V	
C43	1-163-255-11	CERAMIC CHIP	150pF	5%	50V	
C45	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C90	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C101	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C102	1-126-934-11	ELECT	220µF	20%	16V	
C103	1-126-965-91	ELECT	22µF	20%	50V	
C104	1-163-251-11	CERAMIC CHIP	100pF	5%	50V	
C110	1-126-947-11	ELECT	47µF	20%	16V	
C112	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V	
C113	1-126-947-11	ELECT	47µF	20%	16V	
C115	1-163-263-11	CERAMIC CHIP	330pF	5%	50V	
C120	1-163-251-11	CERAMIC CHIP	100pF	5%	50V	
C121	1-163-247-11	CERAMIC CHIP	68pF	5%	50V	
C122	1-163-137-00	CERAMIC CHIP	680pF	5%	50V	
C123	1-163-247-11	CERAMIC CHIP	68pF	5%	50V	
C124	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C125	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C126	1-126-933-11	ELECT	100µF	20%	16V	
C127	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C128	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C129	1-163-089-00	CERAMIC CHIP	6pF	0.5pF	50V	
C130	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C131	1-126-947-11	ELECT	47µF	20%	16V	
C132	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C133	1-126-963-11	ELECT	4.7µF	20%	50V	
C134	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C135	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C136	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C137	1-126-947-11	ELECT	47µF	20%	16V	
C138	1-126-964-11	ELECT	10µF	20%	50V	
C139	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C143	1-126-947-11	ELECT	47µF	20%	16V	
C144	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C145	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C146	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C147	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C148	1-126-933-11	ELECT	100µF	20%	16V	
C149	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C150	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C151	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C152	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C153	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C154	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C155	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C201	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C202	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C203	1-104-661-91	ELECT	330µF	20%	16V	
C204	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C205	1-126-965-91	ELECT	22µF	20%	50V	
C206	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V	
C207	1-126-964-11	ELECT	10µF	20%	50V	
C208	1-126-965-91	ELECT	22µF	20%	50V	
C209	1-126-964-11	ELECT	10µF	20%	50V	
C210	1-216-295-00	SHORT	0			
C211	1-126-965-91	ELECT	22µF	20%	50V	
C212	1-164-346-11	CERAMIC CHIP	1µF		16V	
C213	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C214	1-164-346-11	CERAMIC CHIP	1µF		16V	
C215	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C216	1-126-947-11	ELECT	47µF	20%	16V	
C217	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C218	1-126-947-11	ELECT	47µF	20%	16V	
C219	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C220	1-126-965-91	ELECT	22µF	20%	50V	
C221	1-164-505-11	CERAMIC CHIP	2.2µF		16V	
C222	1-164-346-11	CERAMIC CHIP	1µF		16V	
C223	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C224	1-164-346-11	CERAMIC CHIP	1µF		16V	
C225	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C226	1-126-947-11	ELECT	47µF	20%	16V	
C227	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C228	1-126-947-11	ELECT	47µF	20%	16V	
C229	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C230	1-216-295-00	SHORT	0			
C242	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C243	1-126-967-11	ELECT	47µF	20%	50V	
C244	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C245	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C251	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V	
C252	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V	
C253	1-163-251-11	CERAMIC CHIP	100pF	5%	50V	
C254	1-163-243-11	CERAMIC CHIP	47pF	5%	50V	
C255	1-163-251-11	CERAMIC CHIP	100pF	5%	50V	
C256	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C257	1-126-965-11	ELECT	22µF	20%	50V	
C258	1-126-964-11	ELECT	10µF	20%	50V	
C259	1-164-005-11	CERAMIC CHIP	0.47µF		25V	
C260	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C261	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C262	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C263	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C264	1-126-962-11	ELECT	3.3µF	20%	50V	
C265	1-126-964-11	ELECT	10µF	20%	50V	
C266	1-126-964-11	ELECT	10µF	20%	50V	
C267	1-126-965-91	ELECT	22µF	20%	50V	
C268	1-163-038-00	CERAMIC CHIP	0.1µF		25V	
C269	1-163-131-00	CERAMIC CHIP	390pF	5%	50V	
C270	1-163-131-00	CERAMIC CHIP	390pF	5%	50V	
C271	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V	
C272	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V	
C273	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V	
C274	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V	
C275	1-164-346-11	CERAMIC CHIP	1µF		16V	
C276	1-164-346-11	CERAMIC CHIP	1µF		16V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C277	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C278	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C279	1-126-965-91	ELECT	22µF	20%	50V
C280	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C281	1-126-965-91	ELECT	22µF	20%	50V
C282	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C283	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C300	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C301	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C302	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V
C303	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V
C304	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C305	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C306	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C307	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C308	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C309	1-164-346-11	CERAMIC CHIP	1µF		16V
C310	1-164-346-11	CERAMIC CHIP	1µF		16V
C311	1-164-346-11	CERAMIC CHIP	1µF		16V
C312	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C313	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V
C315	1-216-295-00	SHORT	0		
C316	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C317	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C320	1-126-965-91	ELECT	22µF	20%	50V
C321	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C322	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C323	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C324	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C325	1-164-346-11	CERAMIC CHIP	1µF		16V
C326	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V
C327	1-137-374-11	FILM	0.047µF	5%	50V
C328	1-126-964-11	ELECT	10µF	20%	50V
C330	1-130-777-00	FILM	0.1µF	5%	63V
C331	1-137-581-11	FILM	0.1µF	5%	100V
C332	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C333	1-126-933-11	ELECT	100µF	20%	16V
C334	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C335	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C336	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C337	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C338	1-126-962-11	ELECT	3.3µF	20%	50V
C339	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C340	1-126-933-11	ELECT	100µF	20%	16V
C341	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C342	1-164-346-11	CERAMIC CHIP	1µF		16V
C343	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C344	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C347	1-126-963-11	ELECT	4.7µF	20%	50V
C348	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C350	1-126-964-11	ELECT	10µF	20%	50V
C351	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C352	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C353	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C354	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C355	1-126-965-91	ELECT	22µF	20%	50V
C356	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C357	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C358	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C359	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C360	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C370	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C371	1-163-275-11	CERAMIC CHIP	1000pF	5%	50V
C372	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C373	1-164-489-11	CERAMIC CHIP	0.22µF	10%	16V
C376	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C377	1-126-964-11	ELECT	10µF	20%	50V
C380	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C1001	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C1002	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C1010	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C1013	1-126-965-91	ELECT	22µF	20%	50V
C1014	1-163-038-00	CERAMIC CHIP	0.1µF		25V
C1015	1-164-489-11	CERAMIC CHIP	0.22µF	10%	16V
C1020	1-163-235-11	CERAMIC CHIP	22pF	5%	50V

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CF120	1-781-328-21	TRAP, CERAMIC (6.5MHZ)	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
CN2	*1-564-508-11	PLUG, CONNECTOR 5P	
CN6	*1-564-516-11	PLUG, CONNECTOR 13P	
CN101	1-695-915-11	TAB (CONTACT)	
CN201	1-766-296-31	CONNECTOR, DUAL SCART	
CN301	*1-564-510-11	PLUG, CONNECTOR 7P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2	8-719-988-61	DIODE 1SS355TE-17	
D10	8-719-069-55	DIODE UDZSTE-175.6B	
D11	8-719-069-55	DIODE UDZSTE-175.6B	
D12	8-719-069-55	DIODE UDZSTE-175.6B	
D16	8-719-988-61	DIODE 1SS355TE-17	
D101	8-719-977-81	DIODE DTZ33B	
D102	8-719-988-61	DIODE 1SS355TE-17	
D201	8-719-069-60	DIODE UDZSTE-179.1B	
D202	8-719-069-60	DIODE UDZSTE-179.1B	
D203	8-719-069-60	DIODE UDZSTE-179.1B	
D204	8-719-069-60	DIODE UDZSTE-179.1B	
D205	8-719-069-60	DIODE UDZSTE-179.1B	
D206	8-719-069-60	DIODE UDZSTE-179.1B	
D207	8-719-069-60	DIODE UDZSTE-179.1B	
D208	8-719-069-60	DIODE UDZSTE-179.1B	
D209	8-719-069-60	DIODE UDZSTE-179.1B	
D210	8-719-069-60	DIODE UDZSTE-179.1B	
D211	8-719-069-60	DIODE UDZSTE-179.1B	
D212	8-719-069-60	DIODE UDZSTE-179.1B	
D213	8-719-069-60	DIODE UDZSTE-179.1B	

REF.NO.	PART NO.	DESCRIPTION	REMARK
D214	8-719-069-60	DIODE UDZSTE-179.1B	
D215	8-719-069-60	DIODE UDZSTE-179.1B	
D216	8-719-069-55	DIODE UDZSTE-175.6B	
D217	8-719-069-55	DIODE UDZSTE-175.6B	
D218	8-719-069-55	DIODE UDZSTE-175.6B	
D220	8-719-988-61	DIODE 1SS355TE-17	
D221	8-719-988-61	DIODE 1SS355TE-17	
D222	8-719-069-60	DIODE UDZSTE-179.1B	
D223	8-719-069-60	DIODE UDZSTE-179.1B	
D224	8-719-069-60	DIODE UDZSTE-179.1B	
D225	8-719-069-60	DIODE UDZSTE-179.1B	
D226	8-719-069-60	DIODE UDZSTE-179.1B	
D227	8-719-978-33	DIODE DTZ-TT11-6.8B	
D228	8-719-978-33	DIODE DTZ-TT11-6.8B	
D231	8-719-069-55	DIODE UDZSTE-175.6B	
D251	8-719-047-16	DIODE BAS216	
D303	8-719-988-61	DIODE 1SS355TE-17	
D304	8-719-988-61	DIODE 1SS355TE-17	
D320	8-719-069-60	DIODE UDZSTE-179.1B	
D370	8-719-047-16	DIODE BAS216	
D1010	8-719-036-58	DIODE MA3030-H(TX)	
	<FERRITE BEAD>		
FB101	1-414-235-11	INDUCTOR CHIP 0µH	
FB102	1-414-235-11	INDUCTOR CHIP 0µH	
FB103	1-414-235-11	INDUCTOR CHIP 0µH	
FB104	1-414-235-11	INDUCTOR CHIP 0µH	
	<FILTER>		
FL101	1-236-071-11	ENCAPSULATED COMPONENT	
FL102	1-233-765-21	FILTER	
FL103	1-233-765-21	FILTER	
FL104	1-233-765-21	FILTER	
FL201	1-236-071-11	ENCAPSULATED COMPONENT	
FL202	1-236-071-11	ENCAPSULATED COMPONENT	
FL203	1-236-071-11	ENCAPSULATED COMPONENT	
FL1001	1-236-071-11	ENCAPSULATED COMPONENT	
	<IC>		
IC1	8-759-376-77	IC SDA30C263-GEG	
IC2	8-759-524-94	IC M24C32-MW6T	
IC3	8-759-690-63	IC M27C2001-12C1-RR403	
IC4	8-759-394-57	IC PST593C-MMP-4P	
IC102	8-759-711-62	IC NJM2240M	
IC103	8-752-379-35	IC CXD2044Q-TL	
IC201	8-752-081-26	IC CXA2040AQ-T4	
IC202	8-759-654-15	IC MSP3410D-C5-PS-B4	
IC204	8-759-008-67	IC MC14066BF	
IC205	8-759-394-57	IC PST593C-MMP-4P	
IC206	8-752-058-68	IC CXA1315M	
IC301	8-752-081-43	IC CXA2076Q-TL	
IC302	8-759-565-20	IC TDA4665T/V5-118	
IC303	8-759-430-79	IC TDA8395T/N3	
IC1001	8-759-584-20	IC SDA5273-3CP	

REF.NO.	PART NO.	DESCRIPTION	REMARK
	<CHIP, CONDUCTOR>		
JR1	1-216-295-00	SHORT 0	
JR2	1-216-296-00	SHORT 0	
JR3	1-216-296-00	SHORT 0	
JR4	1-216-295-00	SHORT 0	
JR201	1-216-295-00	SHORT 0	
JR203	1-216-295-00	SHORT 0	
JR208	1-216-295-00	SHORT 0	
JR209	1-216-295-00	SHORT 0	
JR211	1-216-295-00	SHORT 0	
JR212	1-216-295-00	SHORT 0	
JR303	1-216-296-00	SHORT 0	
JR304	1-216-296-00	SHORT 0	
JR305	1-216-296-00	SHORT 0	
JR360	1-216-295-00	SHORT 0	
JR362	1-216-295-00	SHORT 0	
JR1010	1-216-295-00	SHORT 0	
	<COIL>		
L10	1-410-379-31	INDUCTOR CHIP 6.8µH	
L102	1-408-600-31	INDUCTOR 5.6µH	
L111	1-216-295-00	SHORT 0	
L120	1-408-602-31	INDUCTOR 8.2µH	
L121	1-408-591-11	INDUCTOR 1µH	
L122	1-408-602-31	INDUCTOR 8.2µH	
L300	1-412-006-31	INDUCTOR CHIP 10µH	
L301	1-410-993-11	INDUCTOR CHIP 1µH	
	<TRANSISTOR>		
Q1	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q15	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q17	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q18	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q20	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q21	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q22	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q23	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q24	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q25	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q103	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q106	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q107	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q108	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q109	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q111	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q113	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q114	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q115	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q116	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q120	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q122	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q124	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q125	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q130	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q203	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q204	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q211	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q212	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q213	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q214	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q215	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q216	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q217	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q300	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q305	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q306	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q307	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q308	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q309	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q330	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q331	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q1001	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q1002	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
	<RESISTOR>				
R1	1-216-049-00	RES,CHIP	1K	5%	1/10W
R2	1-216-025-00	RES,CHIP	100	5%	1/10W
R3	1-216-025-00	RES,CHIP	100	5%	1/10W
R4	1-216-013-00	RES,CHIP	33	5%	1/10W
R5	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R7	1-216-041-00	RES,CHIP	470	5%	1/10W
R9	1-216-041-00	RES,CHIP	470	5%	1/10W
R18	1-216-025-00	RES,CHIP	100	5%	1/10W
R19	1-216-025-00	RES,CHIP	100	5%	1/10W
R20	1-216-025-00	RES,CHIP	100	5%	1/10W
R21	1-216-025-00	RES,CHIP	100	5%	1/10W
R24	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R25	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R28	1-216-073-00	RES,CHIP	10K	5%	1/10W
R29	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R30	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R31	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R32	1-216-025-00	RES,CHIP	100	5%	1/10W
R33	1-216-025-00	RES,CHIP	100	5%	1/10W
R34	1-216-025-00	RES,CHIP	100	5%	1/10W
R35	1-216-025-00	RES,CHIP	100	5%	1/10W
R40	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R42	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R44	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R46	1-216-095-00	RES,CHIP	82K	5%	1/10W
R47	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R48	1-217-671-11	RES,CHIP	1	5%	1/10W
R49	1-216-025-00	RES,CHIP	100	5%	1/10W
R50	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R51	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R52	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R53	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R54	1-216-025-00	RES,CHIP	100	5%	1/10W
R58	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R59	1-216-025-00	RES,CHIP	100	5%	1/10W
R60	1-216-025-00	RES,CHIP	100	5%	1/10W
R61	1-216-025-00	RES,CHIP	100	5%	1/10W
R62	1-216-025-00	RES,CHIP	100	5%	1/10W
R64	1-216-025-00	RES,CHIP	100	5%	1/10W
R65	1-216-025-00	RES,CHIP	100	5%	1/10W
R66	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R67	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R68	1-216-025-00	RES,CHIP	100	5%	1/10W
R70	1-216-025-00	RES,CHIP	100	5%	1/10W
R71	1-216-025-00	RES,CHIP	100	5%	1/10W
R72	1-216-025-00	RES,CHIP	100	5%	1/10W
R73	1-216-025-00	RES,CHIP	100	5%	1/10W
R74	1-216-025-00	RES,CHIP	100	5%	1/10W
R76	1-216-025-00	RES,CHIP	100	5%	1/10W
R77	1-216-025-00	RES,CHIP	100	5%	1/10W
R78	1-216-025-00	RES,CHIP	100	5%	1/10W
R79	1-216-033-00	RES,CHIP	220	5%	1/10W
R88	1-216-025-00	RES,CHIP	100	5%	1/10W
R91	1-216-025-00	RES,CHIP	100	5%	1/10W
R92	1-216-025-00	RES,CHIP	100	5%	1/10W
R93	1-216-033-00	RES,CHIP	220	5%	1/10W
R94	1-216-033-00	RES,CHIP	220	5%	1/10W
R95	1-216-033-00	RES,CHIP	220	5%	1/10W
R97	1-216-025-00	RES,CHIP	100	5%	1/10W
R101	1-216-061-91	RES,CHIP	3.3K	5%	1/10W
R102	1-216-025-00	RES,CHIP	100	5%	1/10W
R103	1-216-025-00	RES,CHIP	100	5%	1/10W
R104	1-216-073-00	RES,CHIP	10K	5%	1/10W
R105	1-216-113-00	RES,CHIP	470K	5%	1/10W
R106	1-216-073-00	RES,CHIP	10K	5%	1/10W
R107	1-216-295-00	SHORT	0		
R110	1-216-073-00	RES,CHIP	10K	5%	1/10W
R111	1-216-029-00	RES,CHIP	150	5%	1/10W
R112	1-216-029-00	RES,CHIP	150	5%	1/10W
R113	1-216-001-00	RES,CHIP	10	5%	1/10W
R114	1-216-029-00	RES,CHIP	150	5%	1/10W
R115	1-216-037-00	RES,CHIP	330	5%	1/10W
R116	1-216-065-00	RES,CHIP	4.7K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R117	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R118	1-216-071-00	RES,CHIP	8.2K	5%	1/10W	
R119	1-216-033-00	RES,CHIP	220	5%	1/10W	
R120	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	
R121	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R122	1-216-041-00	RES,CHIP	470	5%	1/10W	
R123	1-216-031-00	RES,CHIP	180	5%	1/10W	
R124	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R125	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R126	1-216-025-00	RES,CHIP	100	5%	1/10W	
R127	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R128	1-216-035-00	RES,CHIP	270	5%	1/10W	
R129	1-216-037-00	RES,CHIP	330	5%	1/10W	
R130	1-216-061-91	RES,CHIP	3.3K	5%	1/10W	
R131	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R132	1-216-025-00	RES,CHIP	100	5%	1/10W	
R133	1-216-041-00	RES,CHIP	470	5%	1/10W	
R134	1-216-001-00	RES,CHIP	10	5%	1/10W	
R135	1-216-045-00	RES,CHIP	680	5%	1/10W	
R136	1-216-033-00	RES,CHIP	220	5%	1/10W	
R137	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R138	1-216-041-00	RES,CHIP	470	5%	1/10W	
R142	1-216-295-00	SHORT	0			
R143	1-216-295-00	SHORT	0			
R145	1-216-025-00	RES,CHIP	100	5%	1/10W	
R146	1-216-025-00	RES,CHIP	100	5%	1/10W	
R147	1-216-025-00	RES,CHIP	100	5%	1/10W	
R148	1-216-025-00	RES,CHIP	100	5%	1/10W	
R149	1-216-025-00	RES,CHIP	100	5%	1/10W	
R150	1-216-025-00	RES,CHIP	100	5%	1/10W	
R151	1-216-025-00	RES,CHIP	100	5%	1/10W	
R153	1-216-025-00	RES,CHIP	100	5%	1/10W	
R154	1-216-295-00	SHORT	0			
R156	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R157	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R158	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R159	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R160	1-216-061-91	RES,CHIP	3.3K	5%	1/10W	
R161	1-216-033-00	RES,CHIP	220	5%	1/10W	
R162	1-216-109-00	RES,CHIP	330K	5%	1/10W	
R163	1-216-033-00	RES,CHIP	220	5%	1/10W	
R164	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R165	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R166	1-216-033-00	RES,CHIP	220	5%	1/10W	
R167	1-216-043-91	RES,CHIP	560	5%	1/10W	
R168	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	
R169	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R170	1-216-025-00	RES,CHIP	100	5%	1/10W	
R171	1-216-097-00	RES,CHIP	100K	5%	1/10W	
R172	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	
R173	1-216-025-00	RES,CHIP	100	5%	1/10W	
R174	1-208-797-11	METAL CHIP	4.3K	0.5%	1/10W	
R175	1-208-784-11	METAL CHIP	1.2K	0.5%	1/10W	
R176	1-216-295-00	SHORT	0			
R177	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R178	1-216-295-00	SHORT	0			
R179	1-208-788-11	METAL CHIP	1.8K	0.5%	1/10W	
R180	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W	
R181	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W	
R182	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R183	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R184	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R185	1-216-043-91	RES,CHIP	560	5%	1/10W	
R186	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	
R187	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R188	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R189	1-216-043-91	RES,CHIP	560	5%	1/10W	
R190	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	
R191	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R192	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R193	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R194	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R195	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R196	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R197	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R198	1-216-033-00	RES,CHIP	220	5%	1/10W	
R199	1-216-033-00	RES,CHIP	220	5%	1/10W	
R200	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R201	1-216-033-00	RES,CHIP	220	5%	1/10W	
R202	1-216-033-00	RES,CHIP	220	5%	1/10W	
R203	1-216-025-00	RES,CHIP	100	5%	1/10W	
R204	1-216-025-00	RES,CHIP	100	5%	1/10W	
R205	1-216-689-11	RES,CHIP	39K	5%	1/10W	
R206	1-216-033-00	RES,CHIP	220	5%	1/10W	
R207	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R208	1-216-041-00	RES,CHIP	470	5%	1/10W	
R209	1-216-049-00	RES,CHIP	1K	5%	1/10W	
R210	1-216-017-00	RES,CHIP	47	5%	1/10W	
R211	1-216-033-00	RES,CHIP	220	5%	1/10W	
R212	1-216-022-00	RES,CHIP	75	5%	1/10W	
R213	1-216-022-00	RES,CHIP	75	5%	1/10W	
R214	1-216-025-00	RES,CHIP	100	5%	1/10W	
R216	1-216-025-00	RES,CHIP	100	5%	1/10W	
R217	1-216-113-00	RES,CHIP	470K	5%	1/10W	
R218	1-216-025-00	RES,CHIP	100	5%	1/10W	
R219	1-216-113-00	RES,CHIP	470K	5%	1/10W	
R220	1-216-295-00	SHORT	0			
R221	1-216-039-00	RES,CHIP	390	5%	1/10W	
R222	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R223	1-216-295-00	SHORT	0			
R224	1-216-039-00	RES,CHIP	390	5%	1/10W	
R225	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R226	1-216-033-00	RES,CHIP	220	5%	1/10W	
R227	1-216-022-00	RES,CHIP	75	5%	1/10W	
R228	1-216-022-00	RES,CHIP	75	5%	1/10W	
R229	1-216-033-00	RES,CHIP	220	5%	1/10W	
R230	1-216-022-00	RES,CHIP	75	5%	1/10W	
R232	1-216-025-00	RES,CHIP	100	5%	1/10W	
R233	1-216-025-00	RES,CHIP	100	5%	1/10W	
R234	1-216-113-00	RES,CHIP	470K	5%	1/10W	
R235	1-216-025-00	RES,CHIP	100	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R236	1-216-113-00	RES,CHIP	470K	5%	1/10W
R237	1-216-295-00	SHORT	0		
R238	1-216-089-00	RES,CHIP	47K	5%	1/10W
R239	1-216-039-00	RES,CHIP	390	5%	1/10W
R240	1-216-295-00	SHORT	0		
R241	1-216-089-00	RES,CHIP	47K	5%	1/10W
R242	1-216-039-00	RES,CHIP	390	5%	1/10W
R243	1-216-033-00	RES,CHIP	220	5%	1/10W
R244	1-216-033-00	RES,CHIP	220	5%	1/10W
R248	1-216-025-00	RES,CHIP	100	5%	1/10W
R249	1-216-001-00	RES,CHIP	10	5%	1/10W
R250	1-216-033-00	RES,CHIP	220	5%	1/10W
R251	1-216-025-00	RES,CHIP	100	5%	1/10W
R252	1-216-025-00	RES,CHIP	100	5%	1/10W
R253	1-216-025-00	RES,CHIP	100	5%	1/10W
R254	1-216-025-00	RES,CHIP	100	5%	1/10W
R255	1-216-025-00	RES,CHIP	100	5%	1/10W
R256	1-216-025-00	RES,CHIP	100	5%	1/10W
R257	1-216-073-00	RES,CHIP	10K	5%	1/10W
R258	1-216-017-00	RES,CHIP	47	5%	1/10W
R259	1-216-041-00	RES,CHIP	470	5%	1/10W
R264	1-216-089-91	RES,CHIP	47K	5%	1/10W
R265	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R266	1-216-081-00	RES,CHIP	22K	5%	1/10W
R267	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R268	1-216-089-91	RES,CHIP	47K	5%	1/10W
R269	1-216-089-91	RES,CHIP	47K	5%	1/10W
R270	1-216-022-00	RES,CHIP	75	5%	1/10W
R271	1-216-022-00	RES,CHIP	75	5%	1/10W
R272	1-216-022-00	RES,CHIP	75	5%	1/10W
R273	1-216-022-00	RES,CHIP	75	5%	1/10W
R274	1-216-089-91	RES,CHIP	47K	5%	1/10W
R280	1-216-049-00	RES,CHIP	1K	5%	1/10W
R281	1-216-089-00	RES,CHIP	47K	5%	1/10W
R282	1-216-093-91	RES,CHIP	68K	5%	1/10W
R283	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R284	1-216-089-00	RES,CHIP	47K	5%	1/10W
R285	1-216-093-91	RES,CHIP	68K	5%	1/10W
R286	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R291	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R292	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R293	1-216-089-00	RES,CHIP	47K	5%	1/10W
R294	1-216-097-00	RES,CHIP	100K	5%	1/10W
R295	1-216-049-00	RES,CHIP	1K	5%	1/10W
R296	1-216-049-00	RES,CHIP	1K	5%	1/10W
R297	1-216-033-00	RES,CHIP	220	5%	1/10W
R298	1-216-033-00	RES,CHIP	220	5%	1/10W
R299	1-216-073-00	RES,CHIP	10K	5%	1/10W
R300	1-216-025-00	RES,CHIP	100	5%	1/10W
R301	1-216-033-00	RES,CHIP	220	5%	1/10W
R302	1-216-295-00	SHORT	0		
R303	1-216-295-00	SHORT	0		
R304	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R305	1-216-033-00	RES,CHIP	220	5%	1/10W
R308	1-216-025-00	RES,CHIP	100	5%	1/10W
R309	1-216-033-00	RES,CHIP	220	5%	1/10W
R310	1-216-033-00	RES,CHIP	220	5%	1/10W
R315	1-216-295-00	SHORT	0		
R316	1-216-033-00	RES,CHIP	220	5%	1/10W
R320	1-216-025-00	RES,CHIP	100	5%	1/10W
R321	1-216-025-00	RES,CHIP	100	5%	1/10W
R322	1-216-025-00	RES,CHIP	100	5%	1/10W
R323	1-216-033-00	RES,CHIP	220	5%	1/10W
R325	1-216-089-91	RES,CHIP	47K	5%	1/10W
R326	1-216-025-00	RES,CHIP	100	5%	1/10W
R327	1-216-025-00	RES,CHIP	100	5%	1/10W
R329	1-216-089-00	RES,CHIP	47K	5%	1/10W
R330	1-216-025-00	RES,CHIP	100	5%	1/10W
R331	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R332	1-216-049-00	RES,CHIP	1K	5%	1/10W
R333	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R334	1-216-041-00	RES,CHIP	470	5%	1/10W
R335	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R336	1-216-109-00	RES,CHIP	330K	5%	1/10W
R337	1-216-025-00	RES,CHIP	100	5%	1/10W
R338	1-216-049-00	RES,CHIP	1K	5%	1/10W
R339	1-216-049-00	RES,CHIP	1K	5%	1/10W
R340	1-216-025-00	RES,CHIP	100	5%	1/10W
R341	1-216-025-00	RES,CHIP	100	5%	1/10W
R342	1-216-049-00	RES,CHIP	1K	5%	1/10W
R343	1-216-061-91	RES,CHIP	3.3K	5%	1/10W
R344	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R345	1-216-025-00	RES,CHIP	100	5%	1/10W
R347	1-216-025-00	RES,CHIP	100	5%	1/10W
R348	1-216-025-00	RES,CHIP	100	5%	1/10W
R349	1-216-025-00	RES,CHIP	100	5%	1/10W
R350	1-216-041-00	RES,CHIP	470	5%	1/10W
R351	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R352	1-216-077-91	RES,CHIP	15K	5%	1/10W
R353	1-216-033-00	RES,CHIP	220	5%	1/10W
R354	1-216-295-00	SHORT	0		
R355	1-216-093-91	RES,CHIP	68K	5%	1/10W
R356	1-216-133-91	RES,CHIP	3.3M	5%	1/10W
R357	1-216-049-00	RES,CHIP	1K	5%	1/10W
R358	1-216-105-00	RES,CHIP	220K	5%	1/10W
R359	1-216-295-00	SHORT	0		
R360	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R361	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R370	1-216-295-00	SHORT	0		
R371	1-216-033-00	RES,CHIP	220	5%	1/10W
R373	1-216-049-00	RES,CHIP	1K	5%	1/10W
R374	1-216-041-00	RES,CHIP	470	5%	1/10W
R375	1-216-049-00	RES,CHIP	1K	5%	1/10W
R376	1-216-081-00	RES,CHIP	22K	5%	1/10W
R377	1-216-049-00	RES,CHIP	1K	5%	1/10W
R378	1-208-811-11	METAL CHIP	16K	0.5%	1/10W
R379	1-216-041-00	RES,CHIP	470	5%	1/10W
R1001	1-216-025-00	RES,CHIP	100	5%	1/10W
R1002	1-216-025-00	RES,CHIP	100	5%	1/10W
R1010	1-216-295-00	SHORT	0		
R1012	1-216-041-00	RES,CHIP	470	5%	1/10W
R1014	1-216-065-00	RES,CHIP	4.7K	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R1017	1-216-295-00	SHORT	0		
R1020	1-216-097-00	RES,CHIP	100K	5%	1/10W
R1021	1-216-029-00	RES,CHIP	150	5%	1/10W
R1022	1-216-029-00	RES,CHIP	150	5%	1/10W
R1023	1-216-029-00	RES,CHIP	150	5%	1/10W
R1024	1-216-045-00	RES,CHIP	680	5%	1/10W
R1026	1-216-025-00	RES,CHIP	100	5%	1/10W
R1027	1-216-025-00	RES,CHIP	100	5%	1/10W
R1028	1-216-025-00	RES,CHIP	100	5%	1/10W
	<TUNER>				
TU101 ⚠	1-693-340-14	TUNER/VIF			
	<CRYSTAL>				
X1	1-767-154-21	VIBRATOR, CERAMIC (11.5MHz)			
X201	1-760-628-11	VIBRATOR, CRYSTAL (18.432MHz)			
X301	1-567-504-11	OSCILLATOR, CRYSTAL (4.43MHz)			
X302	1-567-505-11	OSCILLATOR, CRYSTAL (3.58MHz)			
X303	1-767-127-11	VIBRATOR, CERAMIC (500kHz)			
X1001	1-579-965-21	VIBRATOR, CRYSTAL (20.48MHz)			

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REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1637-023-A	G BOARD, COMPLETE ****************************			
	* 4-374-846-01	COVER, CAPACITOR, CAP TYPE			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	<CAPACITOR>				
C6001 ⚠	1-104-706-51	MYLAR	0.22µF	20%	250V
C6002	1-117-703-11	CERAMIC	0.0047µF	99%	250V
C6003 ⚠	1-161-830-91	CERAMIC	0.0047µF		500V
C6004 ⚠	1-104-706-11	MYLAR	0.22µF	20%	250V
C6005 ⚠	1-161-830-00	CERAMIC	0.0047µF		500V
C6006 ⚠	1-119-893-51	CERAMIC	1000pF	20%	250V
C6007	1-107-678-11	ELECT	4.7µF	20%	450V
C6008 ⚠	1-161-830-91	CERAMIC	0.0047µF		500V
C6009 ⚠	1-161-830-91	CERAMIC	0.0047µF		500V
C6010 ⚠	1-119-893-51	CERAMIC	1000pF	20%	250V
C6014	1-117-753-11	ELECT(BLOCK)	470µF	20%	450V
C6015	1-104-664-11	ELECT	47µF	20%	25V
C6016	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C6017	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C6018	1-136-479-11	FILM	0.001µF	2%	50V
C6019	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C6020	1-126-963-11	ELECT	4.7µF	20%	50V
C6021	1-126-964-11	ELECT	10µF	20%	50V
C6023	1-104-665-11	ELECT	100µF	20%	25V
C6024	1-126-967-11	ELECT	47µF	20%	50V
C6025	1-136-165-00	FILM	0.1µF	5%	50V
C6026	1-126-964-11	ELECT	10µF	20%	50V
C6027	1-164-625-11	CERAMIC	680pF	10%	500V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C6029	1-164-625-11	CERAMIC	680pF	10%	500V
C6030	1-104-665-11	ELECT	100µF	20%	25V
C6031	1-115-405-11	FILM	0.039µF	3%	1KV
C6033	1-101-810-00	CERAMIC	100pF	5%	500V
C6034	1-101-810-00	CERAMIC	100pF	5%	500V
C6035	1-102-114-00	CERAMIC	470pF	10%	50V
C6036	1-102-114-00	CERAMIC	470pF	10%	50V
C6037	1-126-960-11	ELECT	1µF	20%	50V
C6038	1-126-768-11	ELECT	2200µF	20%	16V
C6039	1-102-114-00	CERAMIC	470pF	10%	50V
C6040	1-102-114-00	CERAMIC	470pF	10%	50V
C6041	1-126-972-11	ELECT	1000µF	20%	50V
C6042	1-126-972-11	ELECT	1000µF	20%	50V
C6043	1-104-665-11	ELECT	100µF	20%	25V
C6044	1-107-641-11	ELECT	220µF	20%	160V
C6045	1-109-954-11	ELECT	0.47µF	20%	160V
C6046	1-102-114-00	CERAMIC	470pF	10%	50V
C6047	1-102-114-00	CERAMIC	470pF	10%	50V
C6048	1-126-943-11	ELECT	2200µF	20%	25V
C6049	1-128-548-11	ELECT	4700µF	20%	25V
C6050	1-126-935-11	ELECT	470µF	20%	6.3V
C6051	1-126-943-11	ELECT	2200µF	20%	25V
C6052	1-104-665-11	ELECT	100µF	20%	25V
C6053	1-104-665-11	ELECT	100µF	20%	25V
C6054	1-104-665-11	ELECT	100µF	20%	25V
C6055	1-107-641-11	ELECT	220µF	20%	160V
C6056	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
	<CONNECTOR>				
CN6001	1-695-915-11	TAB (CONTACT)			
CN6002	1-695-915-11	TAB (CONTACT)			
CN6003	1-695-915-11	TAB (CONTACT)			
CN6005	1-580-843-11	PIN, CONNECTOR (POWER)			
CN6006 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN6007*	1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
CN6008*	1-564-509-11	PLUG, CONNECTOR 6P			
CN6009*	1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P			
CN6010*	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P			
CN6011*	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
	<DIODE>				
D6001 ⚠	8-719-068-00	DIODE ERC04-06SE			
D6002 ⚠	8-719-068-00	DIODE ERC04-06SE			
D6003 ⚠	8-719-068-00	DIODE ERC04-06SE			
D6004	8-719-988-61	DIODE 1SS355TE-17			
D6005	8-719-073-23	DIODE ST02D-200TA			
D6007 ⚠	8-719-510-63	DIODE D4SB60L-F			
D6008	8-719-110-14	DIODE RD9.1ES-B3			
D6009	8-719-991-33	DIODE 1SS133T-77			
D6010	8-719-063-74	DIODE D1NL20U-TR2			
D6011	8-719-979-64	DIODE UF4005PKG23			
D6012	8-719-063-74	DIODE D1NL20U-TR2			
D6013	8-719-018-83	DIODE D2S4M			
D6014	8-719-018-83	DIODE D2S4M			
D6015	8-719-991-33	DIODE 1SS133T-77			

The components identified by shading and mark ⚠ are critical for safety.
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REF.NO.	PART NO.	DESCRIPTION				REMARK
D6016	8-719-052-91	DIODE D4SBS4-F				
D6017	8-719-312-47	DIODE RBA-406B				
D6018	8-719-031-78	DIODE S2L40F				
D6019	8-719-031-78	DIODE S2L40F				
D6020	8-719-991-33	DIODE 1SS133T-77				
D6021	8-719-057-96	DIODE D10SC6M-4012				
D6022	8-719-921-88	DIODE MTZJ-13B				
	<FUSE>					
F6001 ⚠	1-576-232-21	FUSE (H.B.C.) (5A/250V)				
	<FERRITE BEAD>					
FB6001⚠	1-410-397-31	FERRITE	1.1µH			
FB6002	1-410-397-21	FERRITE	1.1µH			
FB6003⚠	1-410-397-31	FERRITE	1.1µH			
	<FUSE>					
FH6001 *	1-533-725-11	HOLDER, FUSE				
	<IC>					
IC6001 ⚠	8-759-468-89	IC TOP209P				
IC6002	8-759-670-30	IC MCZ3001D				
IC6003 ⚠	8-749-924-35	PHOTO COUPLER ON3171-R				
IC6004 ⚠	8-749-924-35	PHOTO COUPLER ON3171-R				
IC6005	8-749-920-61	IC SE135N				
	<CHIP CONDUCTOR>					
JR6001	1-216-864-11	SHORT	0			
JR6002	1-216-864-11	SHORT	0			
	<COIL>					
L6003	1-412-525-31	INDUCTOR	10µH			
L6004	1-412-525-31	INDUCTOR	10µH			
L6005	1-412-525-31	INDUCTOR	10µH			
L6006	1-412-523-41	INDUCTOR	6.8µH			
L6007	1-412-523-41	INDUCTOR	6.8µH			
L6008	1-412-525-31	INDUCTOR	10µH			
L6009	1-412-525-31	INDUCTOR	10µH			
L6010	1-412-525-31	INDUCTOR	10µH			
L6011	1-412-533-21	INDUCTOR	47µH			
	<IC LINK>					
PS6001⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)				
PS6002⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)				
PS6003⚠	1-533-597-31	LINK, IC (5A/90V AC, 60V DC)				
	<TRANSISTOR>					
Q6001	8-729-056-60	TRANSISTOR SPA07N60C2				
Q6002	8-729-056-60	TRANSISTOR SPA07N60C2				
Q6003	8-729-140-97	TRANSISTOR 2SB734-34				
Q6004	8-729-922-37	TRANSISTOR 2SD2144S-UVW				
Q6005	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q6006	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R				
Q6007	8-729-820-82	TRANSISTOR 2SA1208				
Q6008	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q6009	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
	<RESISTOR>					
R6001 ⚠	1-202-885-91	SOLID	1M	20%	1/2W	
R6002 ⚠	1-212-849-61	FUSIBLE	4.7	5%	1/4W	
R6003	1-215-858-00	METAL OXIDE	15	5%	1W	
R6005	1-216-089-91	RES-CHIP	47K	5%	1/10W	
R6006 ⚠	1-219-720-91	METAL	10M	5%	1W	
R6007	1-216-089-91	RES-CHIP	47K	5%	1/10W	
R6009	1-247-791-91	CARBON	22	5%	1/4W	
R6010 ⚠	1-220-778-11	FUSIBLE	0.1	10%	1/2W	
R6011	1-215-444-00	METAL	9.1K	1%	1/4W	
R6012	1-208-758-11	METAL CHIP	100	0.5%	1/10W	
R6013	1-208-808-11	METAL CHIP	12K	0.5%	1/10W	
R6014	1-249-413-11	CARBON	470	5%	1/4W	
R6015	1-249-377-11	CARBON	0.47	5%	1/4W	
R6016	1-215-395-00	METAL	82	1%	1/4W	
R6017	1-215-481-00	METAL	330K	1%	1/4W	
R6018	1-215-481-00	METAL	330K	1%	1/4W	
R6019	1-216-001-00	RES-CHIP	10	5%	1/10W	
R6020	1-216-001-00	RES-CHIP	10	5%	1/10W	
R6021	1-215-481-00	METAL	330K	1%	1/4W	
R6022	1-249-417-11	CARBON	1K	5%	1/4W	
R6023	1-216-073-91	RES-CHIP	10K	5%	1/10W	
R6024	1-216-073-91	RES-CHIP	10K	5%	1/10W	
R6025	1-217-625-00	METAL	0.05	10%	2W	
R6026	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
R6027	1-216-073-91	RES-CHIP	10K	5%	1/10W	
R6028	1-249-417-11	CARBON	1K	5%	1/4W	
R6029	1-249-377-11	CARBON	0.47	5%	1/4W	
R6030	1-249-377-11	CARBON	0.47	5%	1/4W	
R6031	1-249-377-11	CARBON	0.47	5%	1/4W	
R6032	1-249-377-11	CARBON	0.47	5%	1/4W	
R6033	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
R6034	1-249-377-11	CARBON	0.47	5%	1/4W	
R6035	1-249-377-11	CARBON	0.47	5%	1/4W	
R6036	1-249-417-11	CARBON	1K	5%	1/4W	
R6037	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
R6038	1-216-073-91	RES-CHIP	10K	5%	1/10W	
R6039	1-216-073-91	RES-CHIP	10K	5%	1/10W	
R6040	1-216-041-00	RES-CHIP	470	5%	1/10W	
R6041	1-216-073-91	RES-CHIP	10K	5%	1/10W	
R6042	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R6046	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
R6047	1-249-413-11	CARBON	470	5%	1/4W	
R6048	1-215-477-00	METAL	220K	1%	1/4W	
R6049	1-249-417-11	CARBON	1K	5%	1/4W	
R6050	1-249-441-11	CARBON	100K	5%	1/4W	

The components identified by shading
and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R6051	1-216-366-00	METAL OXIDE	0.56	5%	2W
R6052	1-215-477-00	METAL	220K	1%	1/4W
R6053	1-249-417-11	CARBON	1K	5%	1/4W
R6054	1-215-453-00	METAL	22K	1%	1/4W
R6055	1-215-476-00	METAL	200K	1%	1/4W
R6056	1-216-353-00	METAL OXIDE	2.2	5%	1W
	<RELAY>				
RY6001⚠	1-755-352-11	RELAY, AC POWER			
	<TRANSFORMER>				
T6001 ⚠	1-433-488-11	TRANSFORMER, LINE FILTER			
T6002 ⚠	1-431-732-21	TRANSFORMER, CONVERTER (SRT)			
T6003 ⚠	1-429-807-12	TRANSFORMER, CONVERTER (PIT)			
T6004 ⚠	1-424-861-11	COIL, CHOKE	42µH		
	<THERMISTOR>				
TH6001	1-803-586-41	THERMISTOR			
	<VARISTOR>				
VD6001⚠	1-803-830-31	VARISTOR (ERZV14D621)			

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REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1638-150-A	CB BOARD, COMPLETE			
		******************************			
	4-051-602-11	SHEET, RADIATION			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	<CAPACITOR>				
C762	1-126-964-11	ELECT	10µF	20%	50V
C763	1-161-754-00	CERAMIC	0.001µF	10%	2KV
C764	1-102-117-00	CERAMIC	820pF	10%	50V
C765	1-161-830-00	CERAMIC	0.0047µF		500V
C766	1-162-115-00	CERAMIC	330pF	10%	2KV
C767	1-107-662-11	ELECT	22µF	20%	250V
C768	1-101-880-00	CERAMIC	47pF	5%	50V
C769	1-104-664-11	ELECT	47µF	20%	25V
C772	1-104-660-91	ELECT	47µF	20%	16V
	<CONNECTOR>				
CN761	1-695-915-11	TAB (CONTACT)			
CN762	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN763	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN764 ⚠	1-251-182-41	SOCKET, PICTURE TUBE			
CN765	* 1-564-512-11	PLUG, CONNECTOR 9P			
CN766	* 1-764-333-11	PLUG, CONNECTOR 10P			
	<DIODE>				
D761	8-719-991-33	DIODE 1SS133T-77			
D762	8-719-991-33	DIODE 1SS133T-77			
D763	8-719-991-33	DIODE 1SS133T-77			
D765	8-719-991-33	DIODE 1SS133T-77			
D766	8-719-991-33	DIODE 1SS133T-77			
	<COIL>				
L761	1-408-623-31	INDUCTOR	470µH		
L762	1-408-617-31	INDUCTOR	150µH		
	<TRANSISTOR>				
Q761	8-729-200-17	TRANSISTOR 2SA1091-O			
Q762	8-729-045-56	TRANSISTOR 2SC2611-15			
Q763	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q764	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q765	8-729-119-76	TRANSISTOR 2SA1175-HFE			
	<RESISTOR>				
R761	1-219-743-11	CARBON	100	5%	1/2W
R762	1-260-132-11	CARBON	560K	5%	1/2W
R763	1-216-487-11	METAL OXIDE	12K	5%	3W
R764	1-216-487-11	METAL OXIDE	12K	5%	3W
R765	1-247-807-31	CARBON	100	5%	1/4W
R766	1-260-328-11	CARBON	1K	5%	1/2W
R767	1-249-425-11	CARBON	4.7K	5%	1/4W
R768	1-260-133-11	CARBON	680K	5%	1/2W
R769	1-202-818-00	SOLID	1K	20%	1/2W
R770	1-249-406-11	CARBON	120	5%	1/4W
R771	1-219-743-11	CARBON	100	5%	1/2W
R772	1-247-791-91	CARBON	22	5%	1/4W
R773	1-247-807-31	CARBON	100	5%	1/4W
R776	1-249-437-11	CARBON	47K	5%	1/4W
R777	1-215-436-00	METAL	4.3K	1%	1/4W
R778	1-202-814-11	SOLID	33K	20%	1/2W
R779	1-249-409-11	CARBON	220	5%	1/4W
R781	1-249-438-11	CARBON	56K	5%	1/4W
R782	1-249-433-11	CARBON	22K	5%	1/4W
	<SPARK GAP>				
SG761	1-519-422-11	GAP, SPARK			
SG762	1-519-422-11	GAP, SPARK			
SG763	1-519-422-11	GAP, SPARK			

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REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1638-151-A	CG BOARD, COMPLETE			
		******************************			
	4-051-602-11	SHEET, RADIATION			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	<CAPACITOR>				
C733	1-161-754-00	CERAMIC	0.001µF	10%	2KV
C734	1-102-114-00	CERAMIC	470pF	10%	50V
C735	1-161-830-00	CERAMIC	0.0047µF		500V
C736	1-162-115-00	CERAMIC	330pF	10%	2KV

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

CG **CR**

REF.NO.	PART NO.	DESCRIPTION			REMARK
C737	1-107-662-11	ELECT	22µF	20%	250V
C738	1-101-880-00	CERAMIC	47pF	5%	50V
C739	1-104-664-11	ELECT	47µF	20%	25V
		<CONNECTOR>			
CN731	1-695-915-11	TAB (CONTACT)			
CN732	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN733	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN734	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN735 ⚠	1-251-182-41	SOCKET, PICTURE TUBE			
CN736	* 1-564-512-11	PLUG, CONNECTOR 9P			
CN737	* 1-564-512-11	PLUG, CONNECTOR 9P			
		<DIODE>			
D731	8-719-991-33	DIODE 1SS133T-77			
D732	8-719-991-33	DIODE 1SS133T-77			
D733	8-719-991-33	DIODE 1SS133T-77			
D735	8-719-991-33	DIODE 1SS133T-77			
D736	8-719-991-33	DIODE 1SS133T-77			
		<COIL>			
L731	1-408-623-31	INDUCTOR	470µH		
L732	1-408-617-31	INDUCTOR	150µH		
		<TRANSISTOR>			
Q731	8-729-200-17	TRANSISTOR 2SA1091-O			
Q732	8-729-045-56	TRANSISTOR 2SC2611-15			
Q733	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q734	8-729-119-76	TRANSISTOR 2SA1175-HFE			
		<RESISTOR>			
R731	1-219-743-11	CARBON	100	5%	1/2W
R732	1-260-132-11	CARBON	560K	5%	1/2W
R733	1-216-487-11	METAL OXIDE	12K	5%	3W
R734	1-216-487-11	METAL OXIDE	12K	5%	3W
R735	1-247-807-31	CARBON	100	5%	1/4W
R736	1-249-425-11	CARBON	4.7K	5%	1/4W
R737	1-260-328-11	CARBON	1K	5%	1/2W
R738	1-249-406-11	CARBON	120	5%	1/4W
R739	1-260-133-11	CARBON	680K	5%	1/2W
R740	1-202-818-00	SOLID	1K	20%	1/2W
R741	1-247-791-91	CARBON	22	5%	1/4W
R742	1-249-409-11	CARBON	220	5%	1/4W
R744	1-247-891-00	CARBON	330K	5%	1/4W
R746	1-202-814-11	SOLID	33K	20%	1/2W
		<SPARK GAP>			
SG731	1-519-422-11	GAP, SPARK			
SG732	1-519-422-11	GAP, SPARK			
SG733	1-519-422-11	GAP, SPARK			

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REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1638-152-A	CR BOARD, COMPLETE			
		*******************************			
	4-051-602-11	SHEET, RADIATION			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C702	1-102-112-00	CERAMIC	330pF	10%	50V
C703	1-104-664-11	ELECT	47µF	20%	25V
C705	1-161-754-00	CERAMIC	0.001µF	10%	2KV
C708	1-101-880-00	CERAMIC	47pF	5%	50V
C709	1-162-115-00	CERAMIC	330pF	10%	2KV
C712	1-107-662-11	ELECT	22µF	20%	250V
C713	1-104-660-91	ELECT	47µF	20%	16V
		<CONNECTOR>			
CN701	1-695-915-11	TAB (CONTACT)			
CN702	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN703	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN704	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN705 ⚠	1-251-182-41	SOCKET, PICTURE TUBE			
CN706	* 1-564-512-11	PLUG, CONNECTOR 9P			
		<DIODE>			
D701	8-719-991-33	DIODE 1SS133T-77			
D704	8-719-991-33	DIODE 1SS133T-77			
D705	8-719-991-33	DIODE 1SS133T-77			
D706	8-719-991-33	DIODE 1SS133T-77			
D708	8-719-991-33	DIODE 1SS133T-77			
D709	8-719-109-84	DIODE RD5.1ESB1			
		<COIL>			
L701	1-410-682-31	INDUCTOR	470µH		
L702	1-408-617-31	INDUCTOR	150µH		
		<TRANSISTOR>			
Q701	8-729-200-17	TRANSISTOR 2SA1091-O			
Q703	8-729-045-56	TRANSISTOR 2SC2611-15			
Q704	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q705	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q706	8-729-119-76	TRANSISTOR 2SA1175-HFE			
		<RESISTOR>			
R701	1-219-743-11	CARBON	100	5%	1/2W
R704	1-260-132-11	CARBON	560K	5%	1/2W
R706	1-249-425-11	CARBON	4.7K	5%	1/4W
R707	1-247-807-31	CARBON	100	5%	1/4W
R708	1-249-408-11	CARBON	180	5%	1/4W
R709	1-260-328-11	CARBON	1K	5%	1/2W
R710	1-247-791-91	CARBON	22	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R711	1-216-487-11	METAL OXIDE	12K	5%	3W
R712	1-216-487-11	METAL OXIDE	12K	5%	3W
R714	1-202-818-00	SOLID	1K	20%	1/2W
R715	1-260-133-11	CARBON	680K	5%	1/2W
R716	1-249-409-11	CARBON	220	5%	1/4W
R717	1-249-435-11	CARBON	33K	5%	1/4W
R718	1-249-437-11	CARBON	47K	5%	1/4W
R719	1-219-743-11	CARBON	100	5%	1/2W
R721	1-202-814-11	SOLID	33K	20%	1/2W
R722	1-249-433-11	CARBON	22K	5%	1/4W
R723	1-249-437-11	CARBON	47K	5%	1/4W
	<SPARK GAP>				
SG701	1-519-422-11	GAP, SPARK			
SG702	1-519-422-11	GAP, SPARK			
SG703	1-519-422-11	GAP, SPARK			

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REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1346-678-A	D BOARD, COMPLETE (41PX1R)			
*	A-1642-284-A	D BOARD, COMPLETE (41PX1/41PX1K)			
		****************************			
	4-201-023-01	SPACER, INSULATING			
	4-202-373-01	SPRING, IC			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	<CAPACITOR>				
C1501	1-163-005-91	CERAMIC CHIP	470pF	10%	50V
C1503	1-137-399-11	MYLAR	0.1µF	5%	100V
C1504	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C1506	1-126-969-11	ELECT	220µF	20%	50V
C1507	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1508	1-137-401-11	MYLAR	0.22µF	10%	100V
C1509	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1510	1-126-972-11	ELECT	1000µF	20%	50V
C1511	1-126-972-11	ELECT	1000µF	20%	50V
C1512	1-126-960-11	ELECT	1µF	20%	50V
C1513	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1514	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1516	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1517	1-126-964-11	ELECT	10µF	20%	50V
C1518	1-126-933-11	ELECT	100µF	20%	16V
C1519	1-126-933-11	ELECT	100µF	20%	16V
C1520	1-126-964-11	ELECT	10µF	20%	50V
C1521	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1523	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1524	1-136-177-00	FILM	1µF	5%	50V
C1525	1-104-665-11	ELECT	100µF	20%	25V
C1526	1-104-664-11	ELECT	47µF	20%	25V
C1527	1-163-145-00	CERAMIC CHIP	0.0015µF	5%	50V
C1528	1-163-145-00	CERAMIC CHIP	0.0015µF	5%	50V
C1529	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C1530	1-104-660-91	ELECT	47µF	20%	16V
C1531	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1532	1-126-960-11	ELECT	1µF	20%	50V
C1601	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1602	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1603	1-130-495-00	MYLAR	0.1µF	5%	50V
C1604	1-130-495-00	MYLAR	0.1µF	5%	50V
C1605	1-107-715-11	ELECT	22µF	20%	50V
C1606	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1607	1-137-150-11	MYLAR	0.01µF	5%	50V
C1608	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
					(41PX1/41PX1K)
C1609	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
					(41PX1/41PX1K)
C1610	1-126-960-11	ELECT	1µF	20%	50V
C1611	1-126-960-11	ELECT	1µF	20%	50V
C1612	1-126-960-11	ELECT	1µF	20%	50V
C1613	1-126-967-11	ELECT	47µF	20%	50V
C1614	1-126-967-11	ELECT	47µF	20%	50V
C1617	1-130-495-00	MYLAR	0.1µF	5%	50V
C1618	1-130-495-00	MYLAR	0.1µF	5%	50V
C1619	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1621	1-104-665-11	ELECT	100µF	20%	25V
C1622	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C1624	1-130-495-00	MYLAR	0.1µF	5%	50V
C1626	1-130-495-00	MYLAR	0.1µF	5%	50V
C1627	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C1628	1-126-964-11	ELECT	10µF	20%	50V
C1630	1-128-550-21	ELECT	2200µF	20%	50V
C1631	1-128-550-21	ELECT	2200µF	20%	50V
C1632	1-104-664-11	ELECT	47µF	20%	25V
C1633	1-104-664-11	ELECT	47µF	20%	25V
C1634	1-126-961-11	ELECT	2.2µF	20%	50V
C1635	1-104-666-11	ELECT	220µF	20%	25V
C1650	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1651	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1661	1-136-165-00	FILM	0.1µF	5%	50V
					(41PX1/41PX1K)
C1701	1-126-960-11	ELECT	1µF	20%	50V
C1702	1-126-960-11	ELECT	1µF	20%	50V
C1703	1-126-964-11	ELECT	10µF	20%	50V
C1704	1-126-964-11	ELECT	10µF	20%	50V
C1705	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1706	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1707	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1708	1-126-935-11	ELECT	470µF	20%	16V
C1709	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1710	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1711	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1715	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1716	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1717	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1718	1-126-968-11	ELECT	100µF	20%	50V
C1719	1-126-968-11	ELECT	100µF	20%	50V
C1720	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1721	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C1723	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C1724	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1725	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1726	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1727	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C1802	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C1803	1-126-935-11	ELECT 470µF 20% 16V	
C1804	1-126-964-11	ELECT 10µF 20% 50V	
C1805	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C1806	1-104-665-11	ELECT 100µF 20% 25V	
C1807	1-126-964-11	ELECT 10µF 20% 50V	
C1808	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C1809	1-104-665-11	ELECT 100µF 20% 25V	
C1810	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C1811	1-104-665-11	ELECT 100µF 20% 25V	
C1812	1-126-964-11	ELECT 10µF 20% 50V	
C1813	1-104-666-11	ELECT 220µF 20% 25V	
C1814	1-164-004-11	CERAMIC CHIP 0.1µF 10% 25V	
C1815	1-104-666-11	ELECT 220µF 20% 25V	
C1816	1-126-964-11	ELECT 10µF 20% 50V	(41PX1R)
C1817	1-126-964-11	ELECT 10µF 20% 50V	(41PX1R)
C1818	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C1819	1-163-133-00	CERAMIC CHIP 470pF 5% 50V	(41PX1R)
C1820	1-163-133-00	CERAMIC CHIP 470pF 5% 50V	(41PX1R)
C1821	1-126-964-11	ELECT 10µF 20% 50V	
C1822	1-164-005-11	CERAMIC CHIP 0.47µF 25V	(41PX1R)
C1822	1-216-295-91	SHORT 0	(41PX1/41PX1K)
C1823	1-163-251-11	CERAMIC CHIP 100pF 5% 50V	(41PX1R)
C1824	1-164-005-11	CERAMIC CHIP 0.47µF 25V	(41PX1R)
C1824	1-216-295-91	SHORT 0	(41PX1/41PX1K)
C1825	1-163-251-11	CERAMIC CHIP 100pF 5% 50V	(41PX1R)
C1826	1-104-665-11	ELECT 100µF 20% 25V	
C1827	1-104-664-11	ELECT 47µF 20% 25V	
C1828	1-104-664-11	ELECT 47µF 20% 25V	
C1829	1-104-664-11	ELECT 47µF 20% 25V	
C1830	1-126-964-11	ELECT 10µF 20% 50V	
C1831	1-163-021-91	CERAMIC CHIP 0.01µF 10% 50V	
	<CONNECTOR>		
CN1501 *	1-564-506-11	PLUG, CONNECTOR 3P	
CN1502	1-695-915-11	TAB (CONTACT)	
CN1601 *	1-564-508-11	PLUG, CONNECTOR 5P	
CN1604 *	1-564-507-11	PLUG, CONNECTOR 4P	
CN1605 *	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
CN1606 *	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P	
CN1701 *	1-564-511-11	PLUG, CONNECTOR 8P	
CN1702 *	1-564-516-11	PLUG, CONNECTOR 13P	
CN1703 *	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P	
CN1705 *	1-564-505-31	PLUG, CONNECTOR 2P	
CN1708 *	1-564-510-11	PLUG, CONNECTOR 7P	
CN1801	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN1802 *	1-764-334-11	PLUG, CONNECTOR 11P	
CN1803 *	1-764-333-11	PLUG, CONNECTOR 10P	

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1804 *	1-564-508-11	PLUG, CONNECTOR 5P	
CN1805 *	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P	
CN1806 *	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P	
CN1807 *	1-564-511-11	PLUG, CONNECTOR 8P (41PX1R)	
CN1805 *	1-564-510-11	PLUG, CONNECTOR 7P (41PX1R)	
	<DIODE>		
D1501	8-719-109-89	DIODE RD5.6ESB2	
D1502	8-719-908-03	DIODE GP08D	
D1503	8-719-908-03	DIODE GP08D	
D1504	8-719-991-33	DIODE 1SS133T-77	
D1505	8-719-988-61	DIODE 1SS355TE-17	
D1601	8-719-991-33	DIODE 1SS133T-77	
D1602	8-719-914-43	DIODE DAN202K	
D1603	8-719-991-33	DIODE 1SS133T-77	
D1604	8-719-991-33	DIODE 1SS133T-77	
D1605	8-719-914-43	DIODE DAN202K	
D1606	8-719-991-33	DIODE 1SS133T-77	
D1607	8-719-914-43	DIODE DAN202K	
D1611	8-719-921-86	DIODE MTZJ-13	
D1612	8-719-991-33	DIODE 1SS133T-77	
D1613	8-719-921-86	DIODE MTZJ-13	
D1614	8-719-991-33	DIODE 1SS133T-77	
D1615	8-719-991-33	DIODE 1SS133T-77	
D1616	8-719-991-33	DIODE 1SS133T-77	
D1617	8-719-403-00	DIODE MA3240-TX	
D1618	8-719-991-33	DIODE 1SS133T-77	
D1619	8-719-991-33	DIODE 1SS133T-77	
D1620	8-719-403-00	DIODE MA3240-TX	
D1621	8-719-403-00	DIODE MA3240-TX	
D1622	8-719-403-00	DIODE MA3240-TX	
D1703	8-719-109-89	DIODE RD5.6ESB2	
D1704	8-719-109-89	DIODE RD5.6ESB2	
D1705	8-719-109-84	DIODE RD5.1ESB1	
D1706	8-719-109-84	DIODE RD5.1ESB1	
D1707	8-719-109-84	DIODE RD5.1ESB1	
D1708	8-719-109-84	DIODE RD5.1ESB1	
D1709	8-719-109-81	DIODE RD4.7ESB2	
D1710	8-719-109-81	DIODE RD4.7ESB2	
D1711	8-719-109-81	DIODE RD4.7ESB2	
D1712	8-719-109-81	DIODE RD4.7ESB2	
D1801	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D1802	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D1803	8-719-108-12	DIODE RD9.1EW (41PX1R)	
D1804	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D1805	8-719-108-12	DIODE RD9.1EW (41PX1R)	
D1806	8-719-923-60	DIODE MTZJ-T-77-9.1A	
	<IC>		
IC1501	8-759-192-71	IC STV9379	
IC1502	8-759-251-31	IC CA0007AM	
IC1503	8-759-998-98	IC LM358D	
IC1602	8-759-250-68	IC TDA7264	
IC1603	8-759-502-21	IC TDA2822M	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1701	8-752-908-27	IC CXP86213-003S	
IC1702	8-759-675-64	IC M24C08-MN6T (A)	
IC1703	8-759-467-94	IC LM358D	
IC1704	8-759-467-94	IC LM358D	
IC1706	8-759-352-91	IC PST9143NL	
IC1801	8-759-390-57	IC LM2940CT-5.0	
IC1802	8-759-095-63	IC PQ09RF2	
IC1803	8-759-231-58	IC TA7812S	
IC1804	8-759-069-28	IC PQ05RF11	
IC1805	8-759-467-94	IC LM358D (41PX1R)	
	<JACK>		
J1601	1-784-653-11	JACK, PHONO 2P (AUDIO OUT)	
	<CHIP CONDUCTOR>		
JR1502	1-216-295-91	SHORT 0	
JR1503	1-216-295-91	SHORT 0	
JR1504	1-216-295-91	SHORT 0	
JR1505	1-216-295-91	SHORT 0	
JR1506	1-216-295-91	SHORT 0	
JR1508	1-216-295-91	SHORT 0	
JR1510	1-216-295-91	SHORT 0	
JR1511	1-216-295-91	SHORT 0	
JR1512	1-216-295-91	SHORT 0	
JR1513	1-216-295-91	SHORT 0	
JR1514	1-216-295-91	SHORT 0	
JR1701	1-216-295-91	SHORT 0	
	<COIL>		
L1501	1-412-524-11	INDUCTOR 8.2µH	
L1601	1-402-711-11	INDUCTOR 0µH	
L1602	1-402-711-11	INDUCTOR 0µH	
L1701	1-408-603-31	INDUCTOR 10µH	
L1702	1-408-598-31	INDUCTOR 3.9µH	
L1801	1-408-603-31	INDUCTOR 10µH (41PX1R)	
L1802	1-408-603-31	INDUCTOR 10µH (41PX1/41PX1K)	
	<TRANSISTOR>		
Q1501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1502	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1503	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1505	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1601	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q1602	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1603	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q1604	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q1605	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q1607	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1608	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1609	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1610	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1611	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q1612	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q1613	8-729-027-56	TRANSISTOR DTC143TKA-T146	
Q1614	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1615	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1616	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1617	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1701	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1702	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1703	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1704	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1705	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1706	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1707	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1708	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q1709	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1710	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1711	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1801	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1802	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1803	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1804	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1805	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1806	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1807	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1808	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1809	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
	<RESISTOR>		
R1501	1-216-353-00	METAL OXIDE 2.2 5% 1W	
R1502	1-208-802-11	METAL CHIP 6.8K 0.5% 1/10W	
R1504	1-208-806-11	METAL CHIP 10K 0.5% 1/10W	
R1505	1-249-377-11	CARBON 0.47 5% 1/4W	
R1506	1-215-888-00	METAL OXIDE 220 5% 2W	
R1507	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R1508	1-249-383-11	CARBON 1.5 5% 1/4W	
R1509	1-208-800-11	METAL CHIP 5.6K 0.5% 1/10W	(41PX1/41PX1K)
R1509	1-208-802-11	METAL CHIP 6.8K 0.5% 1/10W	(41PX1R)
R1510	1-208-806-11	METAL CHIP 10K 0.5% 1/10W	
R1511	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R1512	1-216-085-91	RES-CHIP 33K 5% 1/10W	
R1513	1-216-049-00	RES-CHIP 1K 5% 1/10W	
R1514	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1515	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1516	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1517	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R1518	1-216-353-00	METAL OXIDE 2.2 5% 1W	
R1519	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1520	1-216-089-00	RES-CHIP 47K 5% 1/10W	
R1521	1-216-097-00	RES-CHIP 100K 5% 1/10W	
R1522	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1525	1-216-083-00	RES-CHIP 27K 5% 1/10W	
R1526	1-216-083-00	RES-CHIP 27K 5% 1/10W	
R1527	1-216-121-11	RES-CHIP 1M 5% 1/10W	(41PX1R)

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1527	1-216-129-00	RES-CHIP	2.2M	5%	1/10W (41PX1/41PX1K)
R1528	1-216-121-11	RES-CHIP	1M	5%	1/10W (41PX1R)
R1528	1-216-129-00	RES-CHIP	2.2M	5%	1/10W (41PX1/41PX1K)
R1529	1-216-025-00	RES-CHIP	100	5%	1/10W
R1530	1-216-097-00	RES-CHIP	100K	5%	1/10W
R1531	1-216-089-00	RES-CHIP	47K	5%	1/10W
R1532	1-216-025-00	RES-CHIP	100	5%	1/10W
R1533	1-249-377-11	CARBON	0.47	5%	1/4W
R1534	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1537	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1538	1-216-083-00	RES-CHIP	27K	5%	1/10W
R1539	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1540	1-216-091-00	RES-CHIP	56K	5%	1/10W
R1541	1-216-091-00	RES-CHIP	56K	5%	1/10W
R1542	1-216-093-91	RES-CHIP	68K	5%	1/10W
R1543	1-216-093-91	RES-CHIP	68K	5%	1/10W
R1544	1-215-421-00	METAL	1K	1%	1/4W (41PX1/41PX1K)
R1601	1-216-025-00	RES-CHIP	100	5%	1/10W (41PX1R)
R1602	1-216-041-00	RES-CHIP	470	5%	1/10W
R1603	1-216-041-00	RES-CHIP	470	5%	1/10W
R1604	1-216-113-00	RES-CHIP	470K	5%	1/10W
R1605	1-216-113-00	RES-CHIP	470K	5%	1/10W
R1606	1-249-397-11	CARBON	22	5%	1/4W
R1607	1-249-397-11	CARBON	22	5%	1/4W
R1608	1-249-425-11	CARBON	4.7K	5%	1/4W
R1609	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1610	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1611	1-249-425-11	CARBON	4.7K	5%	1/4W
R1614	1-216-357-00	METAL OXIDE	4.7	5%	1W
R1615	1-216-357-00	METAL OXIDE	4.7	5%	1W
R1617	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R1618	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1620	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1625	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R1626	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R1629	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1630	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1631	1-249-389-11	CARBON	4.7	5%	1/4W
R1632	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1633	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1634	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1635	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1636	1-216-075-00	RES-CHIP	12K	5%	1/10W
R1637	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1638	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1639	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1640	1-216-025-00	RES-CHIP	100	5%	1/10W
R1641	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1642	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1643	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1644	1-216-075-00	RES-CHIP	12K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1645	1-216-041-00	RES-CHIP	470	5%	1/10W
R1648	1-249-381-11	CARBON	1	5%	1/4W
R1649	1-216-089-00	RES-CHIP	47K	5%	1/10W
R1650	1-216-033-00	RES-CHIP	220	5%	1/10W
R1651	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1652	1-216-099-00	RES-CHIP	120K	5%	1/10W
R1653	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1654	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1655	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1656	1-216-295-00	SHORT	0	(41PX1R)	
R1701	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1702	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1703	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1704	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1705	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1706	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1707	1-216-025-00	RES-CHIP	100	5%	1/10W
R1708	1-216-025-00	RES-CHIP	100	5%	1/10W
R1709	1-216-025-00	RES-CHIP	100	5%	1/10W
R1710	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1711	1-216-089-00	RES-CHIP	47K	5%	1/10W
R1712	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1713	1-216-089-00	RES-CHIP	47K	5%	1/10W
R1714	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1715	1-216-089-00	RES-CHIP	47K	5%	1/10W
R1716	1-216-033-00	RES-CHIP	220	5%	1/10W
R1717	1-216-089-00	RES-CHIP	47K	5%	1/10W
R1718	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1719	1-216-033-00	RES-CHIP	220	5%	1/10W
R1720	1-216-033-00	RES-CHIP	220	5%	1/10W
R1721	1-216-033-00	RES-CHIP	220	5%	1/10W
R1722	1-216-033-00	RES-CHIP	220	5%	1/10W
R1725	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R1726	1-216-295-91	SHORT	0		
R1727	1-216-033-00	RES-CHIP	220	5%	1/10W
R1728	1-216-025-00	RES-CHIP	100	5%	1/10W
R1729	1-216-025-00	RES-CHIP	100	5%	1/10W
R1730	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1731	1-216-033-00	RES-CHIP	220	5%	1/10W
R1732	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1733	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1734	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1735	1-216-089-00	RES-CHIP	47K	5%	1/10W
R1736	1-216-033-00	RES-CHIP	220	5%	1/10W
R1737	1-216-033-00	RES-CHIP	220	5%	1/10W
R1738	1-216-025-00	RES-CHIP	100	5%	1/10W
R1739	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1740	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1741	1-216-033-00	RES-CHIP	220	5%	1/10W
R1742	1-216-033-00	RES-CHIP	220	5%	1/10W
R1743	1-216-025-00	RES-CHIP	100	5%	1/10W
R1744	1-216-033-00	RES-CHIP	220	5%	1/10W
R1745	1-216-073-00	RES-CHIP	10K	5%	1/10W
R1746	1-216-025-00	RES-CHIP	100	5%	1/10W
R1747	1-216-025-00	RES-CHIP	100	5%	1/10W
R1748	1-216-025-00	RES-CHIP	100	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1749	1-216-033-00	RES-CHIP	220	5%	1/10W	
R1750	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1751	1-216-033-00	RES-CHIP	220	5%	1/10W	
R1752	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1753	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1754	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1755	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1756	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1757	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1758	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1759	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1760	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1762	1-216-063-91	RES-CHIP	3.9K	5%	1/10W	(41PX1/41PX1K)
R1762	1-216-065-00	RES-CHIP	4.7K	5%	1/10W	(41PX1R)
R1763	1-208-797-11	METAL CHIP	4.3K	0.5%	1/10W	(41PX1R)
R1763	1-216-061-91	RES-CHIP	3.3K	5%	1/10W	(41PX1/41PX1K)
R1764	1-216-063-91	RES-CHIP	3.9K	5%	1/10W	(41PX1/41PX1K)
R1764	1-216-065-00	RES-CHIP	4.7K	5%	1/10W	(41PX1R)
R1765	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1766	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R1767	1-216-113-00	RES-CHIP	470K	5%	1/10W	
R1768	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R1769	1-216-115-00	RES-CHIP	560K	5%	1/10W	
R1770	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R1771	1-216-113-00	RES-CHIP	470K	5%	1/10W	
R1772	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R1773	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1774	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1775	1-216-115-00	RES-CHIP	560K	5%	1/10W	
R1778	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R1786	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1787	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1788	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1789	1-216-049-00	RES-CHIP	1K	5%	1/10W	
R1790	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1791	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1792	1-216-089-00	RES-CHIP	47K	5%	1/10W	
R1793	1-216-089-00	RES-CHIP	47K	5%	1/10W	
R1794	1-216-089-00	RES-CHIP	47K	5%	1/10W	
R1795	1-216-089-00	RES-CHIP	47K	5%	1/10W	
R1802	1-215-925-11	METAL OXIDE	22K	5%	3W	
R1803	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1804	1-216-113-00	RES-CHIP	470K	5%	1/10W	(41PX1R)
R1805	1-216-113-00	RES-CHIP	470K	5%	1/10W	(41PX1R)
R1806	1-216-021-00	RES-CHIP	68	5%	1/10W	(41PX1/41PX1K)
R1806	1-216-023-00	RES-CHIP	82	5%	1/10W	(41PX1R)
R1807	1-216-059-00	RES-CHIP	2.7K	5%	1/10W	(41PX1R)
R1807	1-216-295-91	SHORT	0			(41PX1/41PX1K)
R1808	1-216-059-00	RES-CHIP	2.7K	5%	1/10W	(41PX1R)
R1808	1-216-295-91	SHORT	0			(41PX1/41PX1K)
R1809	1-216-097-00	RES-CHIP	100K	5%	1/10W	
R1810	1-216-021-00	RES-CHIP	68	5%	1/10W	(41PX1/41PX1K)
R1810	1-216-023-00	RES-CHIP	82	5%	1/10W	(41PX1R)
R1811	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1812	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1813	1-216-049-00	RES-CHIP	1K	5%	1/10W	
R1814	1-216-023-00	RES-CHIP	82	5%	1/10W	
R1815	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1816	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1817	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1818	1-216-059-00	RES-CHIP	2.7K	5%	1/10W	
R1819	1-216-059-00	RES-CHIP	2.7K	5%	1/10W	(41PX1R)
R1819	1-216-295-91	SHORT	0			(41PX1/41PX1K)
R1820	1-216-059-00	RES-CHIP	2.7K	5%	1/10W	(41PX1R)
R1820	1-216-295-91	SHORT	0			(41PX1/41PX1K)
R1821	1-216-025-00	RES-CHIP	100	5%	1/10W	
R1822	1-216-089-00	RES-CHIP	47K	5%	1/10W	(41PX1R)
R1823	1-216-089-00	RES-CHIP	47K	5%	1/10W	(41PX1R)
R1824	1-216-089-00	RES-CHIP	47K	5%	1/10W	(41PX1R)
R1824	1-216-295-91	SHORT	0			(41PX1/41PX1K)
R1825	1-216-089-00	RES-CHIP	47K	5%	1/10W	(41PX1R)
R1825	1-216-295-91	SHORT	0			(41PX1/41PX1K)
R1826	1-216-089-00	RES-CHIP	47K	5%	1/10W	(41PX1R)
R1826	1-216-295-91	SHORT	0			(41PX1/41PX1K)
R1827	1-216-089-00	RES-CHIP	47K	5%	1/10W	(41PX1R)
R1828	1-216-089-00	RES-CHIP	47K	5%	1/10W	(41PX1R)
R1829	1-216-089-00	RES-CHIP	47K	5%	1/10W	(41PX1R)
R1829	1-216-295-91	SHORT	0			(41PX1/41PX1K)
R1830	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R1831	1-216-063-91	RES-CHIP	3.9K	5%	1/10W	
R1832	1-216-049-00	RES-CHIP	1K	5%	1/10W	(41PX1R)
R1832	1-216-051-00	RES-CHIP	1.2K	5%	1/10W	(41PX1/41PX1K)
R1833	1-216-041-00	RES-CHIP	470	5%	1/10W	
R1834	1-216-049-00	RES-CHIP	1K	5%	1/10W	
R1835	1-216-049-00	RES-CHIP	1K	5%	1/10W	
R1836	1-216-049-00	RES-CHIP	1K	5%	1/10W	
R1837	1-216-049-00	RES-CHIP	1K	5%	1/10W	
R1838	1-216-041-00	RES-CHIP	470	5%	1/10W	
R1839	1-216-049-00	RES-CHIP	1K	5%	1/10W	
R1840	1-216-049-00	RES-CHIP	1K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1841	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1842	1-216-049-00	RES-CHIP	1K	5%	1/10W
					(41PX1/R)
R1842	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
					(41PX1/41PX1K)
R1843	1-216-041-00	RES-CHIP	470	5%	1/10W
R1844	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1845	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1846	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1847	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1848	1-216-049-00	RES-CHIP	1K	5%	1/10W
R1849	1-216-041-00	RES-CHIP	470	5%	1/10W
	<RELAY>				
RY1601	1-755-028-11	RELAY			
RY1602	1-755-028-11	RELAY			
	<TERMINAL BOARD>				
TB1601	1-694-303-11	TERMINAL, PUSH (CENTER SP IN)			
	<CRYSTAL>				
X1701	1-579-125-11	VIBRATOR, CERAMIC (8.0MHz)			
**					
	* A-1642-288-A	E BOARD, COMPLETE			
		****************************			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	7-682-952-09	SCREW +PSW 3X16			
	<CAPACITOR>				
C502	1-126-959-11	ELECT	0.47µF	20%	50V
C505	1-130-471-00	MYLAR	0.001µF	5%	50V
C506	1-126-933-11	ELECT	100µF	20%	16V
C507	1-126-965-91	ELECT	22µF	20%	50V
C508	1-102-228-00	CERAMIC	470pF	10%	500V
C509	1-106-383-00	MYLAR	0.047µF	10%	200V
C511	1-130-475-00	MYLAR	0.0022µF	5%	50V
C512	1-136-479-11	FILM	0.001µF	5%	50V
C513	1-126-965-91	ELECT	22µF	20%	50V
C514 ⚠	1-162-116-91	CERAMIC	680pF	10%	2KV
C515 ⚠	1-125-831-91	FILM	0.033µF	3%	630V
C516 ⚠	1-117-648-11	FILM	15000pF	3%	1.2KV
C518	1-130-495-00	MYLAR	0.1µF	5%	50V
C519	1-106-359-00	MYLAR	0.0047µF	10%	100V
C520	1-162-116-00	CERAMIC	680pF	10%	2KV
C521	1-162-116-00	CERAMIC	680pF	10%	2KV
C523	1-115-521-11	FILM	0.82µF	5%	250V
C524	1-106-359-00	MYLAR	0.0047µF	10%	100V
C526	1-102-228-00	CERAMIC	470pF	10%	500V
C527	1-126-970-11	ELECT	330µF	20%	50V
C528	1-107-957-11	ELECT	1µF	20%	250V
C529	1-109-844-11	FILM	0.68µF	5%	250V
C530	1-107-648-91	ELECT	100µF	20%	160V
C531	1-126-971-11	ELECT	470µF	20%	50V
C532	1-126-971-11	ELECT	470µF	20%	50V
C533	1-107-655-11	ELECT	47µF	20%	250V
C535	1-106-387-00	MYLAR	0.068µF	10%	200V
C536	1-137-374-11	MYLAR	0.047µF	5%	50V
C537	1-126-968-11	ELECT	100µF	20%	50V
C538	1-126-968-11	ELECT	100µF	20%	50V
C539	1-162-114-00	CERAMIC	0.0047µF		2KV
C540	1-137-372-11	MYLAR	0.022µF	5%	50V
C541	1-137-374-11	MYLAR	0.047µF	5%	50V
C542	1-126-934-11	ELECT	220µF	20%	16V
C548	1-102-244-00	CERAMIC	220pF	10%	500V
C550	1-126-935-11	ELECT	470µF	20%	16V
C551	1-126-935-11	ELECT	470µF	20%	16V
C554	1-130-062-91	FILM	0.0056µF	5%	630V
C555	1-126-960-11	ELECT	1µF	20%	50V
C556	1-130-495-00	MYLAR	0.1µF	5%	50V
C701	1-126-933-11	ELECT	100µF	20%	16V
C801	1-104-665-11	ELECT	100µF	20%	25V
C802	1-104-665-11	ELECT	100µF	20%	25V
C803	1-126-934-11	ELECT	220µF	20%	16V
C804	1-126-934-11	ELECT	220µF	20%	16V
C805	1-126-934-11	ELECT	220µF	20%	16V
C806	1-126-934-11	ELECT	220µF	20%	16V
C807	1-137-374-11	MYLAR	0.047µF	5%	50V
C808	1-137-374-11	MYLAR	0.047µF	5%	50V
C809	1-137-374-11	MYLAR	0.047µF	5%	50V
C810	1-137-374-11	MYLAR	0.047µF	5%	50V
C811	1-102-074-00	CERAMIC	0.001µF	10%	50V
C812	1-136-169-00	MYLAR	0.22µF	5%	50V
C813	1-137-374-11	MYLAR	0.047µF	5%	50V
C815	1-104-665-11	ELECT	100µF	20%	25V
C816	1-130-014-00	FILM	470pF	5%	50V
C817	1-104-664-11	ELECT	47µF	20%	25V
C818	1-126-933-11	ELECT	100µF	20%	16V
C819	1-104-664-11	ELECT	47µF	20%	25V
C820	1-102-129-00	CERAMIC	0.01µF	10%	50V
C821	1-130-495-00	MYLAR	0.1µF	5%	50V
C822	1-107-648-91	ELECT	100µF	20%	160V
C823	1-104-664-11	ELECT	47µF	20%	25V
C824	1-126-964-11	ELECT	10µF	20%	50V
C825	1-104-665-11	ELECT	100µF	20%	25V
C826	1-136-165-00	MYLAR	0.1µF	5%	50V
C827	1-126-964-11	ELECT	10µF	20%	50V
C828	1-102-824-00	CERAMIC	470pF	5%	50V
C829	1-126-959-11	ELECT	0.47µF	20%	50V
C830	1-102-824-00	CERAMIC	470pF	5%	50V
C831	1-126-960-11	ELECT	1µF	20%	50V
C832	1-126-960-11	ELECT	1µF	20%	50V
C833	1-126-960-11	ELECT	1µF	20%	50V
C834	1-126-968-11	ELECT	100µF	20%	50V
C835	1-126-967-11	ELECT	47µF	20%	50V
C836	1-136-169-00	MYLAR	0.22µF	5%	50V
C837	1-126-963-11	ELECT	4.7µF	20%	50V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C838	1-104-665-11	ELECT	100µF	20%	25V	
C839	1-137-374-11	MYLAR	0.047µF	5%	50V	
C840	1-104-665-11	ELECT	100µF	20%	25V	
C841	1-137-374-11	MYLAR	0.047µF	5%	50V	
C842	1-137-374-11	MYLAR	0.047µF	5%	50V	
C843	1-104-664-11	ELECT	47µF	20%	25V	
C844	1-126-933-11	ELECT	100µF	20%	16V	
C845	1-126-933-11	ELECT	100µF	20%	16V	
C846	1-126-933-11	ELECT	100µF	20%	16V	
C847	1-126-933-11	ELECT	100µF	20%	16V	
C848	1-126-933-11	ELECT	100µF	20%	16V	
C849	1-102-973-00	CERAMIC	100pF	5%	50V	
C850	1-102-973-00	CERAMIC	100pF	5%	50V	
C851	1-137-374-11	MYLAR	0.047µF	5%	50V	
C852	1-137-374-11	MYLAR	0.047µF	5%	50V	
C853	1-137-374-11	MYLAR	0.047µF	5%	50V	
C854	1-126-933-11	ELECT	100µF	20%	16V	
C855	1-102-973-00	CERAMIC	100pF	5%	50V	
C856	1-102-973-00	CERAMIC	100pF	5%	50V	
C857	1-126-933-11	ELECT	100µF	20%	16V	
C858	1-104-665-11	ELECT	100µF	20%	25V	
C859	1-104-665-11	ELECT	100µF	20%	25V	
C860	1-126-933-11	ELECT	100µF	20%	16V	
C861	1-137-374-11	MYLAR	0.047µF	5%	50V	
C862	1-137-374-11	MYLAR	0.047µF	5%	50V	
C863	1-137-374-11	MYLAR	0.047µF	5%	50V	
C864	1-126-933-11	ELECT	100µF	20%	16V	
C865	1-137-366-11	MYLAR	0.0022µF	5%	50V	
C866	1-136-177-00	MYLAR	1µF	5%	50V	
C867	1-104-664-11	ELECT	47µF	20%	25V	
C868	1-164-096-11	CERAMIC	0.01µF		50V	
C869	1-130-487-00	MYLAR	0.022µF	5%	50V	
C870	1-164-096-11	CERAMIC	0.01µF		50V	
C872	1-126-960-11	ELECT	1µF	20%	50V	
C873	1-126-964-11	ELECT	10µF	20%	50V	
C874	1-104-664-11	ELECT	47µF	20%	25V	
C875	1-164-096-11	CERAMIC	0.01µF		50V	
C876	1-102-973-00	CERAMIC	100pF	5%	50V	
C877	1-102-973-00	CERAMIC	100pF	5%	50V	
C878	1-104-664-11	ELECT	47µF	20%	25V	
C879	1-104-664-11	ELECT	47µF	20%	25V	
C880	1-104-664-11	ELECT	47µF	20%	25V	
C881	1-102-973-00	CERAMIC	100pF	5%	50V	
C882	1-102-973-00	CERAMIC	100pF	5%	50V	
C883	1-102-973-00	CERAMIC	100pF	5%	50V	
C884	1-104-665-11	ELECT	100µF	20%	25V	
C885	1-104-664-11	ELECT	47µF	20%	25V	
C886	1-102-973-00	CERAMIC	100pF	5%	50V	
C887	1-102-973-00	CERAMIC	100pF	5%	50V	
C888	1-102-973-00	CERAMIC	100pF	5%	50V	
C889	1-104-665-11	ELECT	100µF	20%	25V	
C897	1-104-665-11	ELECT	100µF	20%	25V	
C898	1-164-096-11	CERAMIC	0.01µF		50V	

REF.NO.		PART NO.	DESCRIPTION	REMARK
			<CONNECTOR>	
CN501	*	1-564-513-11	PLUG, CONNECTOR 10P	
CN502	*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN503	*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN504	*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN505	*	1-506-371-00	PIN, CONNECTOR 2P	
CN506	*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN507	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN508		1-695-915-11	TAB (CONTACT)	
CN651	*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN652	*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN801	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN802	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN803	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN804	*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN805	*	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
CN806	*	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN807	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN808	*	1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P	
CN810	*	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	
			<DIODE>	
D501		8-719-991-33	DIODE 1SS133T-77	
D502		8-719-991-33	DIODE 1SS133T-77	
D503		8-719-991-33	DIODE 1SS133T-77	
D504		8-719-921-63	DIODE MTZJ-7.5B	
D507		8-719-302-43	DIODE EL1Z	
D508		8-719-900-26	DIODE ERD29-08J	
D509		8-719-945-80	DIODE ERC06-15S	
D510		8-719-991-33	DIODE 1SS133T-77	
D511		8-719-302-43	DIODE EL1Z	
D512		8-719-991-33	DIODE 1SS133T-77	
D513		8-719-302-43	DIODE EL1Z	
D514		8-719-908-03	DIODE GP08D	
D515		8-719-908-03	DIODE GP08D	
D517		8-719-018-82	DIODE RGP02-20EL-6394	
D519		8-719-991-33	DIODE 1SS133T-77	
D522		8-719-991-33	DIODE 1SS133T-77	
D523		8-719-991-33	DIODE 1SS133T-77	
D524		8-719-991-33	DIODE 1SS133T-77	
D527		8-719-109-85	DIODE RD5.1ESB2	
D560		8-719-991-33	DIODE 1SS133T-77	
D701		8-719-109-63	DIODE RD3.0ESB2	
D702		8-719-991-33	DIODE 1SS133T-77	
D820		8-719-109-68	DIODE RD3.6ESB1	
D829		8-719-109-84	DIODE RD5.1ESB1	
D835		8-719-109-89	DIODE RD5.6ESB2	
D840		8-719-991-33	DIODE 1SS133T-77	
D842		8-719-991-33	DIODE 1SS133T-77	
D845		8-719-991-33	DIODE 1SS133T-77	
D846		8-719-991-33	DIODE 1SS133T-77	
			<FERRITE BEAD>	
FB501		1-410-397-21	FERRITE 1.1µH	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<IC>	
IC501	8-759-133-90	IC µPC339C	
IC801	8-759-327-51	IC PA0053B	
IC802	8-759-327-51	IC PA0053B	
IC803	8-759-183-37	IC CA0007AD	
IC804	8-759-464-79	IC PM0011AS	
IC805	8-759-711-28	IC NJM2058D	
IC806	8-759-464-79	IC PM0011AS	
IC807	8-759-700-69	IC NJM79L12A	
IC808	8-759-464-79	IC PM0011AS	
IC809	8-749-014-37	IC STK392-150	
IC810	8-749-014-37	IC STK392-150	
IC811	8-759-981-96	IC RC4560D	
IC812	8-759-701-56	IC NJM78M05FA	
IC813	8-759-701-65	IC NJM79M05FA	
IC814	8-759-595-88	IC AN77L12-TA	
		<COIL>	
L502	1-410-478-11	INDUCTOR 47µH	
L503	1-459-111-00	INDUCTOR 10mH	
L505 ⚠	1-416-637-11	COIL, HORIZONTAL LINEARITY	
L506	1-412-552-11	INDUCTOR 2.2mH	
L801	1-406-979-11	INDUCTOR 220µH	
L802	1-406-979-11	INDUCTOR 220µH	
L803	1-406-665-11	INDUCTOR 100µH	
		<NEON LAMP>	
NL501	1-519-108-99	LAMP, NEON	
		<IC LINK>	
PS601 ⚠	1-533-597-31	LINK, IC (5A/90V AC, 60V DC)	
PS602 ⚠	1-533-597-31	LINK, IC (5A/90V AC, 60V DC)	
PS603 ⚠	1-533-593-31	LINK, IC (2A/90V AC, 60V DC)	
PS604 ⚠	1-533-593-31	LINK, IC (2A/90V AC, 60V DC)	
PS605 ⚠	1-533-593-31	LINK, IC (2A/90V AC, 60V DC)	
PS606 ⚠	1-533-593-31	LINK, IC (2A/90V AC, 60V DC)	
PS607 ⚠	1-533-593-31	LINK, IC (2A/90V AC, 60V DC)	
PS608 ⚠	1-533-593-31	LINK, IC (2A/90V AC, 60V DC)	
		<TRANSISTOR>	
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q502	8-729-044-29	TRANSISTOR 2SD2539 (LBSONY-1)	
Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q504	8-729-046-80	TRANSISTOR 2SC4634LS-CB11	
Q505	8-729-038-83	TRANSISTOR 2SK2251-01-F19	
Q506	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q507	8-729-032-61	TRANSISTOR 2SC5022-02	
Q701	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q702	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q801	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q803	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q804	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q805	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q806	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q807	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q808	8-729-030-02	TRANSISTOR DTC144ESA			
Q809	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q810	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q811	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q812	8-729-119-76	TRANSISTOR 2SA1175-HFE			
		<RESISTOR>			
⧓R1 ⚠		METAL		1%	1/4W
R501	1-249-421-11	CARBON	2.2K	5%	1/4W
R502	1-216-465-21	METAL OXIDE	27K	5%	2W
R503	1-247-843-11	CARBON	3.3K	5%	1/4W
R504	1-249-419-11	CARBON	1.5K	5%	1/4W
R505	1-247-885-00	CARBON	180K	5%	1/4W
R506	1-247-883-00	CARBON	150K	5%	1/4W
R507	1-249-422-11	CARBON	2.7K	5%	1/4W
R508	1-260-338-51	CARBON	6.8K	5%	1/2W
R509	1-249-437-11	CARBON	47K	5%	1/4W
R510	1-215-918-00	METAL OXIDE	1.5K	5%	3W
R511	1-215-918-00	METAL OXIDE	1.5K	5%	3W
R512	1-215-918-00	METAL OXIDE	1.5K	5%	3W
R513	1-247-843-11	CARBON	3.3K	5%	1/4W
R514	1-215-443-00	METAL	8.2K	1%	1/4W
R516	1-215-467-00	METAL	82K	1%	1/4W
R517	1-215-449-00	METAL	15K	1%	1/4W
R518	1-249-436-11	CARBON	39K	5%	1/4W
R519	1-249-429-11	CARBON	10K	5%	1/4W
R522	1-249-428-11	CARBON	8.2K	5%	1/4W
R523	1-249-437-11	CARBON	47K	5%	1/4W
R524	1-249-425-11	CARBON	4.7K	5%	1/4W
R525	1-249-405-11	CARBON	100	5%	1/4W
R527	1-249-425-11	CARBON	4.7K	5%	1/4W
R528	1-215-910-00	METAL OXIDE	68	5%	3W
R529	1-215-449-00	METAL	15K	1%	1/4W
R530	1-249-429-11	CARBON	10K	5%	1/4W
R531	1-260-326-11	CARBON	680	5%	1/2W
R532	1-260-315-71	CARBON	82	5%	1/2W
R533	1-214-912-00	METAL	91K	1%	1/2W
R534	1-215-479-00	METAL	270K	1%	1/4W
R535	1-247-887-00	CARBON	220K	5%	1/4W
R536	1-249-377-11	CARBON	0.47	5%	1/4W
R537	1-260-336-11	CARBON	4.7K	5%	1/2W
R538	1-249-425-11	CARBON	4.7K	5%	1/4W
R539	1-249-377-11	CARBON	0.47	5%	1/4W
R540	1-249-377-11	CARBON	0.47	5%	1/4W
R541	1-247-807-31	CARBON	100	5%	1/4W
R542	1-215-864-00	METAL OXIDE	150	5%	1W
R543	1-216-349-00	METAL OXIDE	1	5%	1W
R544	1-216-864-00	METAL OXIDE	150	5%	1W
R545	1-249-377-11	CARBON	0.47	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R546	1-249-377-11	CARBON	0.47	5%	1/4W	
R547	1-247-807-31	CARBON	100	5%	1/4W	
R548	1-249-413-11	CARBON	470	5%	1/4W	
R549	1-249-431-11	CARBON	15K	5%	1/4W	
R550	1-247-807-31	CARBON	100	5%	1/4W	
R551	1-249-437-11	CARBON	47K	5%	1/4W	
R552	1-247-807-31	CARBON	100	5%	1/4W	
R553	1-247-881-00	CARBON	120K	5%	1/4W	
R554	1-249-405-11	CARBON	100	5%	1/4W	
R555	1-247-807-31	CARBON	100	5%	1/4W	
R556	1-260-328-11	CARBON	1K	5%	1/2W	
R557	1-216-490-11	METAL OXIDE	39K	5%	3W	
R558	1-216-490-11	METAL OXIDE	39K	5%	3W	
R559	1-216-490-11	METAL OXIDE	39K	5%	3W	
R562	1-202-838-00	SOLID	100K	10%	1/2W	
R563	1-215-447-00	METAL	12K	1%	1/4W	
R565	1-247-807-31	CARBON	100	5%	1/4W	
R567	1-216-390-11	METAL OXIDE	1.2	5%	3W	
R568	1-247-903-00	CARBON	1M	5%	1/4W	
R569	1-216-390-11	METAL OXIDE	1.2	5%	3W	
R570	1-215-910-00	METAL OXIDE	68	5%	3W	
R571	1-249-422-11	CARBON	2.7K	5%	1/4W	
R572	1-247-895-91	CARBON	470K	5%	1/4W	
R573	1-249-438-11	CARBON	56K	5%	1/4W	
R574	1-249-435-11	CARBON	33K	5%	1/4W	
R576	1-247-807-31	CARBON	100	5%	1/4W	
R577	1-249-422-11	CARBON	2.7K	5%	1/4W	
R578	1-215-473-00	METAL	150K	1%	1/4W	
R579	1-247-889-00	CARBON	270K	5%	1/4W	
R580	1-249-437-11	CARBON	47K	5%	1/4W	
R581	1-249-437-11	CARBON	47K	5%	1/4W	
R583	1-249-428-11	CARBON	8.2K	5%	1/4W	
R584	1-249-429-11	CARBON	10K	5%	1/4W	
R585	1-216-490-11	METAL OXIDE	39K	5%	3W	
R586	1-215-892-11	METAL OXIDE	1K	5%	2W	
R588	1-249-433-11	CARBON	22K	5%	1/4W	
R589	1-247-887-00	CARBON	220K	5%	1/4W	
R591	1-249-425-11	CARBON	4.7K	5%	1/4W	
R595	1-215-464-00	METAL	62K	1%	1/4W	
R596	1-215-473-00	METAL	150K	1%	1/4W	
R597	1-215-464-00	METAL	62K	1%	1/4W	
R701	1-215-449-00	METAL	15K	1%	1/4W	
R702	1-249-421-11	CARBON	2.2K	5%	1/4W	
R703	1-249-421-11	CARBON	2.2K	5%	1/4W	
R704	1-215-457-00	METAL	33K	1%	1/4W	
R705	1-215-457-00	METAL	33K	1%	1/4W	
R706	1-215-457-00	METAL	33K	1%	1/4W	
R801	1-247-807-31	CARBON	100	5%	1/4W	
R802	1-247-807-31	CARBON	100	5%	1/4W	
R803	1-249-430-11	CARBON	12K	5%	1/4W	
R804	1-249-425-11	CARBON	4.7K	5%	1/4W	
R805	1-247-807-31	CARBON	100	5%	1/4W	
R806	1-249-429-11	CARBON	10K	5%	1/4W	
R807	1-247-807-31	CARBON	100	5%	1/4W	
R808	1-249-429-11	CARBON	10K	5%	1/4W	
R809	1-249-425-11	CARBON	4.7K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R810	1-247-807-31	CARBON	100	5%	1/4W	
R811	1-247-807-31	CARBON	100	5%	1/4W	
R813	1-249-433-11	CARBON	22K	5%	1/4W	
R814	1-247-807-31	CARBON	100	5%	1/4W	
R815	1-247-807-31	CARBON	100	5%	1/4W	
R816	1-247-807-31	CARBON	100	5%	1/4W	
R817	1-247-807-31	CARBON	100	5%	1/4W	
R818	1-249-429-11	CARBON	10K	5%	1/4W	
R819	1-247-807-31	CARBON	100	5%	1/4W	
R820	1-249-437-11	CARBON	47K	5%	1/4W	
R821	1-249-431-11	CARBON	15K	5%	1/4W	
R822	1-249-417-11	CARBON	1K	5%	1/4W	
R823	1-249-417-11	CARBON	1K	5%	1/4W	
R824	1-215-462-00	METAL	51K	1%	1/4W	
R825	1-249-441-11	CARBON	100K	5%	1/4W	
R826	1-215-462-00	METAL	51K	1%	1/4W	
R827	1-216-474-11	METAL OXIDE	82	5%	3W	
R828	1-249-426-11	CARBON	5.6K	5%	1/4W	
R829	1-249-426-11	CARBON	5.6K	5%	1/4W	
R830	1-249-414-11	CARBON	560	5%	1/4W	
R831	1-249-414-11	CARBON	560	5%	1/4W	
R832	1-249-441-11	CARBON	100K	5%	1/4W	
R833	1-216-474-11	METAL OXIDE	82	5%	3W	
R834	1-249-441-11	CARBON	100K	5%	1/4W	
R835	1-249-441-11	CARBON	100K	5%	1/4W	
R836	1-247-807-31	CARBON	100	5%	1/4W	
R837	1-249-441-11	CARBON	100K	5%	1/4W	
R838	1-249-421-11	CARBON	2.2K	5%	1/4W	
R839	1-247-807-31	CARBON	100	5%	1/4W	
R841	1-249-409-11	CARBON	220	5%	1/4W	
R842	1-247-807-31	CARBON	100	5%	1/4W	
R843	1-247-807-31	CARBON	100	5%	1/4W	
R844	1-247-807-31	CARBON	100	5%	1/4W	
R845	1-249-441-11	CARBON	100K	5%	1/4W	
R846	1-247-807-31	CARBON	100	5%	1/4W	
R847	1-215-481-00	METAL	330K	1%	1/4W	
R848	1-215-449-00	METAL	15K	1%	1/4W	
R850	1-215-481-00	METAL	330K	1%	1/4W	
R851	1-247-807-31	CARBON	100	5%	1/4W	
R852	1-247-807-31	CARBON	100	5%	1/4W	
R853	1-247-887-00	CARBON	220K	5%	1/4W	
R854	1-249-429-11	CARBON	10K	5%	1/4W	
R856	1-247-807-31	CARBON	100	5%	1/4W	
R857	1-247-807-31	CARBON	100	5%	1/4W	
R858	1-215-455-00	METAL	27K	1%	1/4W	
R859	1-215-455-00	METAL	27K	1%	1/4W	
R860	1-215-455-00	METAL	27K	1%	1/4W	
R861	1-215-455-00	METAL	27K	1%	1/4W	
R862	1-215-455-00	METAL	27K	1%	1/4W	
R863	1-215-455-00	METAL	27K	1%	1/4W	
R865	1-249-424-11	CARBON	3.9K	5%	1/4W	
R866	1-249-437-11	CARBON	47K	5%	1/4W	
R867	1-215-455-00	METAL	27K	1%	1/4W	
R868	1-215-443-00	METAL	8.2K	1%	1/4W	
R869	1-249-425-11	CARBON	4.7K	5%	1/4W	
R870	1-249-437-11	CARBON	47K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R871	1-249-417-11	CARBON	1K	5%	1/4W
R872	1-249-425-11	CARBON	4.7K	5%	1/4W
R873	1-247-807-31	CARBON	100	5%	1/4W
R874	1-249-435-11	CARBON	33K	5%	1/4W
R875	1-249-441-11	CARBON	100K	5%	1/4W
R877	1-249-422-11	CARBON	2.7K	5%	1/4W
R878	1-215-469-00	METAL	100K	1%	1/4W
R879	1-215-445-00	METAL	10K	1%	1/4W
R881	1-249-408-11	CARBON	180	5%	1/4W
R882	1-249-429-11	CARBON	10K	5%	1/4W
R883	1-249-429-11	CARBON	10K	5%	1/4W
R884	1-215-445-00	METAL	10K	1%	1/4W
R885	1-249-441-11	CARBON	100K	5%	1/4W
R886	1-249-428-11	CARBON	8.2K	5%	1/4W
R887	1-247-807-31	CARBON	100	5%	1/4W
R888	1-247-807-31	CARBON	100	5%	1/4W
R889	1-249-439-11	CARBON	68K	5%	1/4W
R890	1-249-441-11	CARBON	100K	5%	1/4W
R891	1-247-843-11	CARBON	3.3K	5%	1/4W
R892	1-249-425-11	CARBON	4.7K	5%	1/4W
R893	1-249-421-11	CARBON	2.2K	5%	1/4W
R894	1-215-455-00	METAL	27K	1%	1/4W
R895	1-249-421-11	CARBON	2.2K	5%	1/4W
R896	1-249-441-11	CARBON	100K	5%	1/4W
R897	1-247-807-31	CARBON	100	5%	1/4W
R898	1-249-409-11	CARBON	220	5%	1/4W
R900	1-216-474-11	METAL OXIDE	82	5%	3W
R901	1-215-449-00	METAL	15K	1%	1/4W
R902	1-215-449-00	METAL	15K	1%	1/4W
R903	1-215-421-00	METAL	1K	1%	1/4W
R904	1-214-800-11	METAL	2.2	1%	1/2W
R905	1-214-800-11	METAL	2.2	1%	1/2W
R906	1-214-800-11	METAL	2.2	1%	1/2W
R908	1-215-445-00	METAL	10K	1%	1/4W
R909	1-215-421-00	METAL	1K	1%	1/4W
R910	1-215-421-00	METAL	1K	1%	1/4W
R911	1-215-461-00	METAL	47K	1%	1/4W
R912	1-215-445-00	METAL	10K	1%	1/4W
R913	1-215-455-00	METAL	27K	1%	1/4W
R914	1-215-455-00	METAL	27K	1%	1/4W
R915	1-215-455-00	METAL	27K	1%	1/4W
R916	1-215-455-00	METAL	27K	1%	1/4W
R917	1-215-455-00	METAL	27K	1%	1/4W
R918	1-215-455-00	METAL	27K	1%	1/4W
R919	1-249-435-11	CARBON	33K	5%	1/4W
R920	1-214-800-11	METAL	2.2	1%	1/2W
R921	1-249-429-11	CARBON	10K	5%	1/4W
R922	1-215-445-00	METAL	10K	1%	1/4W
R923	1-249-425-11	CARBON	4.7K	5%	1/4W
R924	1-215-445-00	METAL	10K	1%	1/4W
R925	1-249-425-11	CARBON	4.7K	5%	1/4W
R926	1-249-408-11	CARBON	180	5%	1/4W
R927	1-249-429-11	CARBON	10K	5%	1/4W
R928	1-249-429-11	CARBON	10K	5%	1/4W
R929	1-214-800-11	METAL	2.2	1%	1/2W
R930	1-214-800-11	METAL	2.2	1%	1/2W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R931	1-215-445-00	METAL	10K	1%	1/4W
R933	1-215-445-00	METAL	10K	1%	1/4W
R934	1-249-422-11	CARBON	2.7K	5%	1/4W
R935	1-249-429-11	CARBON	10K	5%	1/4W
R936	1-249-429-11	CARBON	10K	5%	1/4W
R937	1-249-436-11	CARBON	39K	5%	1/4W
R938	1-215-421-00	METAL	1K	1%	1/4W
R939	1-259-878-11	CARBON	1.5M	5%	1/4W
R940	1-249-441-11	CARBON	100K	5%	1/4W
R941	1-249-441-11	CARBON	100K	5%	1/4W
R942	1-249-421-11	CARBON	2.2K	5%	1/4W
R943	1-249-441-11	CARBON	100K	5%	1/4W
R944	1-215-421-00	METAL	1K	1%	1/4W
R945	1-249-439-11	CARBON	68K	5%	1/4W
R946	1-215-421-00	METAL	1K	1%	1/4W
R947	1-249-441-11	CARBON	100K	5%	1/4W
R948	1-249-409-11	CARBON	220	5%	1/4W
R949	1-247-807-31	CARBON	100	5%	1/4W
R950	1-247-807-31	CARBON	100	5%	1/4W
R951	1-247-807-31	CARBON	100	5%	1/4W
R952	1-247-807-31	CARBON	100	5%	1/4W
R953	1-249-435-11	CARBON	33K	5%	1/4W
R954	1-215-433-00	METAL	3.3K	1%	1/4W
R955	1-215-433-00	METAL	3.3K	1%	1/4W
R956	1-249-429-11	CARBON	10K	5%	1/4W
R957	1-214-800-11	METAL	2.2	1%	1/2W
R958	1-214-800-11	METAL	2.2	1%	1/2W
R959	1-215-433-00	METAL	3.3K	1%	1/4W
R961	1-249-425-11	CARBON	4.7K	5%	1/4W
R962	1-214-800-11	METAL	2.2	1%	1/2W
R963	1-214-800-11	METAL	2.2	1%	1/2W
R964	1-215-433-00	METAL	3.3K	1%	1/4W
R965	1-215-433-00	METAL	3.3K	1%	1/4W
R966	1-249-409-11	CARBON	220	5%	1/4W
R967	1-215-455-00	METAL	27K	1%	1/4W
R968	1-215-455-00	METAL	27K	1%	1/4W
R969	1-215-455-00	METAL	27K	1%	1/4W
R970	1-215-455-00	METAL	27K	1%	1/4W
R971	1-215-455-00	METAL	27K	1%	1/4W
R972	1-215-455-00	METAL	27K	1%	1/4W
R973	1-214-800-11	METAL	2.2	1%	1/2W
R974	1-215-455-00	METAL	27K	1%	1/4W
R975	1-214-800-11	METAL	2.2	1%	1/2W
R976	1-215-433-00	METAL	3.3K	1%	1/4W
R978	1-215-443-00	METAL	8.2K	1%	1/4W
R979	1-249-425-11	CARBON	4.7K	5%	1/4W
R980	1-249-409-11	CARBON	220	5%	1/4W
R981	1-249-409-11	CARBON	220	5%	1/4W
R982	1-215-469-00	METAL	100K	1%	1/4W
R983	1-249-409-11	CARBON	220	5%	1/4W
R984	1-215-445-00	METAL	10K	1%	1/4W
R985	1-249-429-11	CARBON	10K	5%	1/4W
R986	1-215-449-00	METAL	15K	1%	1/4W
R987	1-249-408-11	CARBON	180	5%	1/4W
R988	1-249-429-11	CARBON	10K	5%	1/4W
R989	1-249-425-11	CARBON	4.7K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R990	1-249-431-11	CARBON	15K	5%	1/4W
R991	1-249-429-11	CARBON	10K	5%	1/4W
R993	1-249-425-11	CARBON	4.7K	5%	1/4W
R994	1-216-474-11	METAL OXIDE	82	5%	3W
R997	1-215-445-00	METAL	10K	1%	1/4W
R998	1-249-425-11	CARBON	4.7K	5%	1/4W
R999	1-249-425-11	CARBON	4.7K	5%	1/4W
R1901	1-249-439-11	CARBON	68K	5%	1/4W
R1904	1-249-425-11	CARBON	4.7K	5%	1/4W
	<SPARK GAP>				
SG501	1-519-422-11	GAP, SPARK			
	<TRANSFORMER>				
T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
T502 ⚠	1-431-211-11	TRANSFORMER, FERRITE (PMT)			
T504 ⚠	1-453-331-21	TRANSFORMER ASSY, FLYBACK (NX-4010//M3P4)			
**					
*	A-1646-237-A	H1 BOARD, COMPLETE ******************************			
	<CAPACITOR>				
C3001	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3002	1-102-074-00	CERAMIC	0.001µF	10%	50V
C3004	1-126-933-11	ELECT	100µF	20%	16V
C3005	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
	<CONNECTOR>				
CN3001 *	1-564-525-11	PLUG, CONNECTOR 10P			
CN3002 *	1-564-518-11	PLUG, CONNECTOR 3P			
CN3003 *	1-580-690-11	PIN, CONNECTOR (PC BOARD) 4P			
CN3004 *	1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P			
	<DIODE>				
D3001	8-719-109-89	DIODE RD5.6ESB2			
D3003	8-719-109-89	DIODE RD5.6ESB2			
D3008	8-719-302-45	DIODE SEL1210S-D (STANDBY)			
	<IC>				
IC3002	8-742-180-30	HYB IC SBX3081-51(30)			
	<TRANSISTOR>				
Q3002	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
	<RESISTOR>				
R3001	1-216-081-00	RES-CHIP	22K	5%	1/10W
R3002	1-216-073-91	RES-CHIP	10K	5%	1/10W
R3003	1-216-041-00	RES-CHIP	470	5%	1/10W
R3004	1-216-033-00	RES-CHIP	220	5%	1/10W
R3006	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R3007	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R3010	1-216-045-00	RES-CHIP	680	5%	1/10W
	<SWITCH>				
S3001	1-692-431-21	SWITCH, TACTIL (PROG –)			
S3002	1-692-431-21	SWITCH, TACTIL (PROG +)			
S3003	1-692-431-21	SWITCH, TACTIL (VOL +)			
S3004	1-692-431-21	SWITCH, TACTIL (VOL –)			
S3005	1-692-431-21	SWITCH, TACTIL (TV/VIDEO)			
S3006 ⚠	1-571-433-21	SWITCH, PUSH (POWER)			
**					
*	A-1646-238-A	H2 BOARD, COMPLETE ******************************			
	<CAPACITOR>				
C3204	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C3205	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C3214	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C3217	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
	<CONNECTOR>				
CN3201 *	1-564-518-11	PLUG, CONNECTOR 3P			
CN3202 *	1-564-526-31	PLUG, CONNECTOR 11P			
CN3204 *	1-564-520-11	PLUG, CONNECTOR 5P			
CN3213	1-694-564-11	TERMINAL BLOCK, S (AV4 IN)			
	<DIODE>				
D3215	8-719-109-97	DIODE RD6.8ES-B2			
D3216	8-719-109-97	DIODE RD6.8ES-B2			
	<JACK>				
J3202	1-507-806-00	JACK 1P (HEAD PHONE)			
	<CHIP CONDUCTOR>				
JR3201	1-216-864-11	SHORT	0		
JR3202	1-216-864-11	SHORT	0		
JR3203	1-216-864-11	SHORT	0		
JR3204	1-216-864-11	SHORT	0		
	<COIL>				
L3201	1-408-615-31	INDUCTOR	100µH		
L3202	1-408-615-31	INDUCTOR	100µH		
L3203	1-408-399-00	INDUCTOR	1.5µH		

REF.NO.	PART NO.	DESCRIPTION				REMARK
	<RESISTOR>					
R3207	1-208-785-11	METAL CHIP	1.3K	0.5%	1/10W	
R3209	1-216-033-00	RES-CHIP	220	5%	1/10W	
R3210	1-216-033-00	RES-CHIP	220	5%	1/10W	
R3211	1-216-033-00	RES-CHIP	220	5%	1/10W	
R3212	1-216-033-00	RES-CHIP	220	5%	1/10W	
R3214	1-216-025-11	RES-CHIP	100	5%	1/10W	
R3212	1-216-025-11	RES-CHIP	100	5%	1/10W	
	<SWITCH>					
S3205	1-692-431-21	SWITCH, TACTIL (AUTO CONVER)				
S3206	1-692-431-21	SWITCH, TACTIL (AUTO TUNE)				

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* A-1648-033-A U BOARD, COMPLETE (41PX1/41PX1K)

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REF.NO.	PART NO.	DESCRIPTION				REMARK
	<CAPACITOR>					
C4901	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C4902	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C4903	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C4904	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
	<CONNECTOR>					
CN4901 *	1-564-522-11	PLUG, CONNECTOR 7P				
CN4902 *	1-564-523-11	PLUG, CONNECTOR 8P				
	<DIODE>					
D4906	8-719-069-60	DIODE UDZSTE-179.1B				
D4907	8-719-069-60	DIODE UDZSTE-179.1B				
D4908	8-719-069-60	DIODE UDZSTE-179.1B				
	<JACK>					
J4901	1-695-549-11	SOCKET, PIN 21P (AV3 IN/OUT)				
	<COIL>					
L4900	1-412-002-31	INDUCTOR	4.7µH			
L4901	1-412-002-31	INDUCTOR	4.7µH			
L4902	1-412-002-31	INDUCTOR	4.7µH			
L4903	1-412-002-31	INDUCTOR	4.7µH			
	<RESISTOR>					
R4901	1-216-043-91	RES-CHIP	560	5%	1/10W	
R4903	1-216-043-91	RES-CHIP	560	5%	1/10W	
R4907	1-216-043-91	RES-CHIP	560	5%	1/10W	
R4910	1-216-295-91	SHORT	0			
R4912	1-216-295-91	SHORT	0			
R4913	1-216-295-91	SHORT	0			
R4915	1-216-043-91	RES-CHIP	560	5%	1/10W	

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* A-1648-034-A UE BOARD, COMPLETE (41PXIR)

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REF.NO.	PART NO.	DESCRIPTION				REMARK
	<CAPACITOR>					
C2701	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C2702	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C2703	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C2704	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V	
C2705	1-126-934-11	ELECT	220µF	20%	16V	
C2706	1-126-964-11	ELECT	10µF	20%	50V	
C2707	1-126-964-11	ELECT	10µF	20%	50V	
C2708	1-126-947-11	ELECT	47µF	20%	16V	
C2709	1-126-964-11	ELECT	10µF	20%	50V	
C2710	1-126-947-11	ELECT	47µF	20%	16V	
	<CONNECTOR>					
CN2701 *	1-564-522-11	PLUG, CONNECTOR 7P				
CN2702 *	1-564-523-11	PLUG, CONNECTOR 8P				
CN2703	1-695-549-11	SOCKET, PIN 21P				
	<DIODE>					
D2701	8-719-069-60	DIODE UDZSTE-179.1B				
D2702	8-719-069-60	DIODE UDZSTE-179.1B				
D2703	8-719-069-60	DIODE UDZSTE-179.1B				
D2704	8-719-069-60	DIODE UDZSTE-179.1B				
D2705	8-719-069-60	DIODE UDZSTE-179.1B				
D2706	8-719-069-60	DIODE UDZSTE-179.1B				
D2707	8-719-069-60	DIODE UDZSTE-179.1B				
D2708	8-719-069-60	DIODE UDZSTE-179.1B				
	<RESISTOR>					
R2702	1-216-022-00	RES,CHIP	75	5%	1/10W	
R2703	1-216-033-00	RES,CHIP	220	5%	1/10W	
R2704	1-216-039-00	RES,CHIP	390	5%	1/10W	
R2705	1-216-039-00	RES,CHIP	390	5%	1/10W	
R2706	1-216-024-00	RES,CHIP	91	5%	1/10W	
R2707	1-216-023-00	RES,CHIP	82	5%	1/10W	
R2709	1-216-113-00	RES,CHIP	470K	5%	1/10W	
R2710	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R2711	1-216-113-00	RES,CHIP	470K	5%	1/10W	
R2712	1-216-089-00	RES,CHIP	47K	5%	1/10W	
R2715	1-216-025-11	RES,CHIP	100	5%	1/10W	
R2716	1-216-295-91	SHORT	0			
R2717	1-216-025-11	RES,CHIP	100	5%	1/10W	
R2718	1-216-295-91	SHORT	0			

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* A-1652-078-A ZG BOARD, COMPLETE
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1431	1-102-508-91	CERAMIC	10pF	0.5pF	50V	
C1432	1-126-935-11	ELECT	470µF	20%	16V	
C1433	1-107-364-11	MYLAR	0.01µF	10%	200V	
C1434	1-107-364-11	MYLAR	0.01µF	10%	200V	
C1435	1-107-667-11	ELECT	2.2µF	20%	160V	
C1436	1-130-471-00	MYLAR	0.001µF	5%	50V	
C1437	1-130-471-00	MYLAR	0.001µF	5%	50V	
C1438	1-107-364-11	MYLAR	0.01µF	10%	200V	
C1439	1-161-830-00	CERAMIC	0.0047µF		500V	
C1440	1-104-664-11	ELECT	47µF	20%	25V	
C1441	1-137-380-11	MYLAR	0.47µF	5%	50V	
C1443	1-126-935-11	ELECT	470µF	20%	16V	
C1444	1-107-648-91	ELECT	100µF	20%	160V	
C1445	1-126-935-11	ELECT	470µF	20%	16V	
C1446	1-126-935-11	ELECT	470µF	20%	16V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1431	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN1432	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN1433	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN1434	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN1461	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN1462	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN1463	1-564-505-31	PLUG, CONNECTOR 2P	
CN1464	* 1-564-507-11	PLUG, CONNECTOR 4P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1431	8-719-924-11	DIODE MTZJ-T-77-22	
D1432	8-719-924-11	DIODE MTZJ-T-77-22	
D1433	8-719-991-33	DIODE 1SS133T-77	
D1434	8-719-991-33	DIODE 1SS133T-77	
D1435	8-719-991-33	DIODE 1SS133T-77	
D1436	8-719-991-33	DIODE 1SS133T-77	
D1437	8-719-991-33	DIODE 1SS133T-77	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
DY1431	⚠ 1-451-517-31	DEFLECTION YOKE (G)	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L1431	1-410-478-11	INDUCTOR	47µH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1431	8-729-044-61	TRANSISTOR 2SC4793 (LBS2SONY)	
Q1432	8-729-044-59	TRANSISTOR 2SA1837 (LBS2SONY)	
Q1433	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1434	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q1435	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q1436	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q1437	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q1438	8-729-119-76	TRANSISTOR 2SA1175-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1431	1-249-414-11	CARBON	560	5%	1/4W	
R1432	1-249-414-11	CARBON	560	5%	1/4W	
R1433	1-249-377-11	CARBON	0.47	5%	1/4W	
R1434	1-215-916-00	METAL OXIDE	680	5%	3W	
R1435	1-216-475-11	METAL OXIDE	120	5%	3W	
R1436	1-216-475-11	METAL OXIDE	120	5%	3W	
R1437	1-249-415-11	CARBON	680	5%	1/4W	
R1438	1-215-451-00	METAL	18K	1%	1/4W	
R1439	1-215-451-00	METAL	18K	1%	1/4W	
R1440	1-249-415-11	CARBON	680	5%	1/4W	
R1442	1-247-807-31	CARBON	100	5%	1/4W	
R1443	1-249-377-11	CARBON	0.47	5%	1/4W	
R1444	1-247-807-31	CARBON	100	5%	1/4W	
R1445	1-125-417-00	CARBON	680	5%	1/4W	
R1446	1-249-401-11	CARBON	47	5%	1/4W	
R1447	1-249-401-11	CARBON	47	5%	1/4W	
R1448	1-249-417-11	CARBON	1K	5%	1/4W	
R1449	1-215-389-00	METAL	47	1%	1/4W	
R1450	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1451	1-249-409-11	CARBON	220	5%	1/4W	
R1452	1-249-413-11	CARBON	470	5%	1/4W	
R1454	1-260-310-51	CARBON	33	5%	1/2W	
R1455	1-249-383-11	CARBON	1.5	5%	1/4W	
R1457	1-249-417-11	CARBON	1K	5%	1/4W	
R1458	1-249-383-11	CARBON	1.5	5%	1/4W	
R1459	1-249-399-11	CARBON	33	5%	1/4W	
R1460	1-215-916-00	METAL OXIDE	680	5%	3W	
R1461	1-249-414-11	CARBON	560	5%	1/4W	
R1462	1-249-414-11	CARBON	560	5%	1/4W	
R1463	1-249-429-11	CARBON	10K	5%	1/4W	
R1465	1-216-475-11	METAL OXIDE	120	5%	3W	
R1468	1-216-475-11	METAL OXIDE	120	5%	3W	

****

* A-1652-079-A ZR BOARD, COMPLETE
****

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1401	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN1403	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN1404	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN1405	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
DY1401	⚠ 1-451-517-31	DEFLECTION YOKE (R)	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<RESISTOR>			
R1401	1-249-414-11	CARBON	560	5%	1/4W
R1402	1-249-414-11	CARBON	560	5%	1/4W
R1403	1-215-916-00	METAL OXIDE	680	5%	3W
R1415	1-216-475-11	METAL OXIDE	120	5%	3W
R1418	1-216-475-11	METAL OXIDE	120	5%	3W

****

MISCELLANEOUS
****

REF.NO.	PART NO.	DESCRIPTION
⚠	1-223-925-71	RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)
⚠	1-451-517-21	DEFLECTION YOKE
⚠	1-451-517-31	DEFLECTION YOKE
⚠	1-452-790-31	NECK ASSY
⚠	1-452-790-41	NECK ASSY
	1-505-426-11	SPEAKER (10.6 CM)
	1-528-864-12	BATTERY, SOLAR
	1-543-653-21	CORE ASSY, BEAD (DIVISION TYPE)
⚠	1-765-286-11	CORD, POWER
⚠	8-598-955-13	BLOCK ASSY, HIGH-VOLTAGE
⚠	A-1501-213-A	MECHASEAL ASSY (R), SLANT
⚠	A-1501-214-A	MECHASEAL ASSY (G), SLANT
⚠	A-1501-215-A	MECHASEAL ASSY (B), SLANT

****

ACCESSORIES & PACKING MATERIALS
****

REF.NO.	PART NO.	DESCRIPTION
*	4-029-168-01	BAG, PROTECTION
*	4-030-895-01	JOINT
*	4-041-423-11	SHEET, PROTECTION
*	4-065-646-01	CUSHION (UPPER) (ASSY)
*	4-065-730-01	TRAY
*	4-072-998-01	INDIVIDUAL CARTON
*	4-206-026-01	CUSHION, LOWER
	4-026-027-11	MANUAL, INSTRUCTION (41PX1)
	4-026-027-21	MANUAL, INSTRUCTION (41PX1R)
	4-026-027-31	MANUAL, INSTRUCTION (41PX1K)

****

REMOTE COMMANDER
****

PART NO.	DESCRIPTION
1-418-572-11	REMOTE COMMANDER (RM-892)
1-473-692-11	REMOTE COMMANDER (RM-862)

Sony Corporation
HNC. HVC. Projection Display Business Div

English
2001FA71-1

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